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PAPER TRADE JOURNAL

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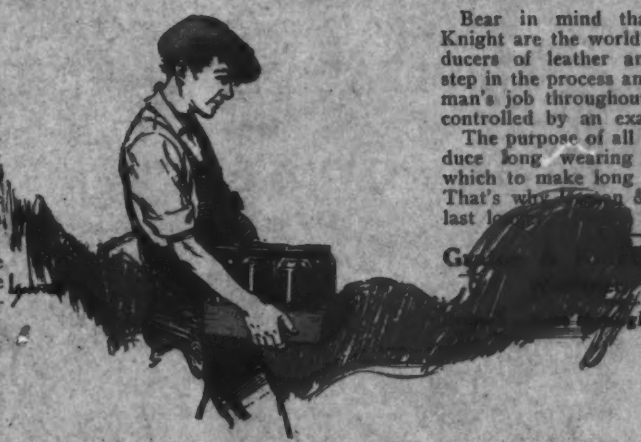
Vol. LXXXV, No. 2 JULY 14, 1927 Per annum $4.00 Per Copy 10 Cents

A boy and a tray of fruit jars
— *symbols of a principle*

Every day a boy walks across the inner court of the Graton & Knight plant with a tray of carefully sealed fruit jars tucked under his arm. Each jar contains samples of the tanning solutions that are being prepared down below. Upstairs, in a big chemical laboratory that would hold the entire original Graton & Knight belting plant, the contents of the jars will go through an elaborate examination.

This is a symbol of the principle on which Graton & Knight have grown. It is the principle of exactness in every process.



Bear in mind that Graton & Knight are the world's largest producers of leather and that every step in the process and every workman's job throughout the plant, is controlled by an exact formula.

The purpose of all this is to produce long wearing leather from which to make long wearing belts. That's why Graton & Knight belts last l...

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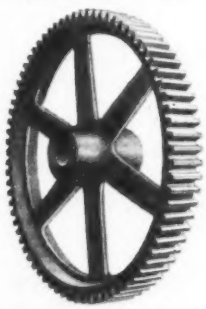

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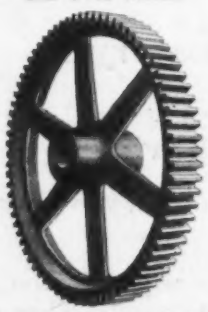

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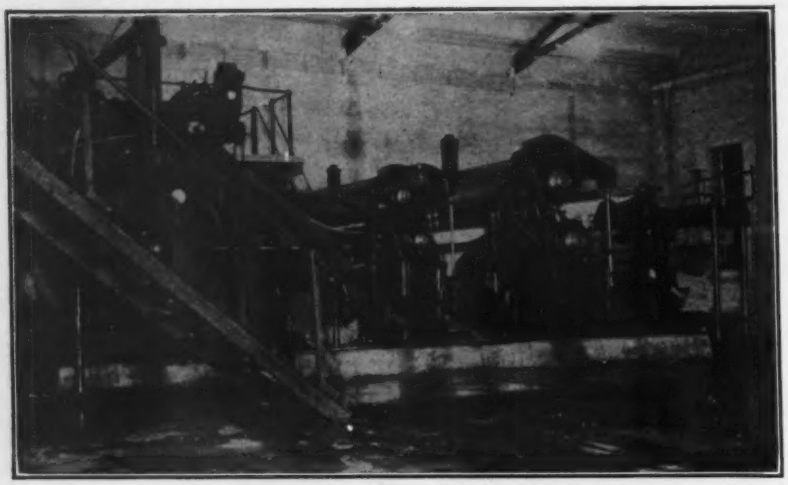

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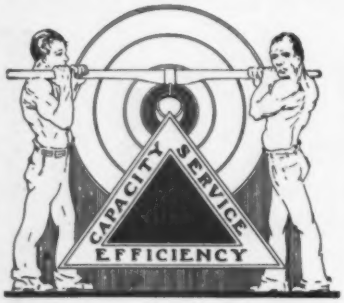

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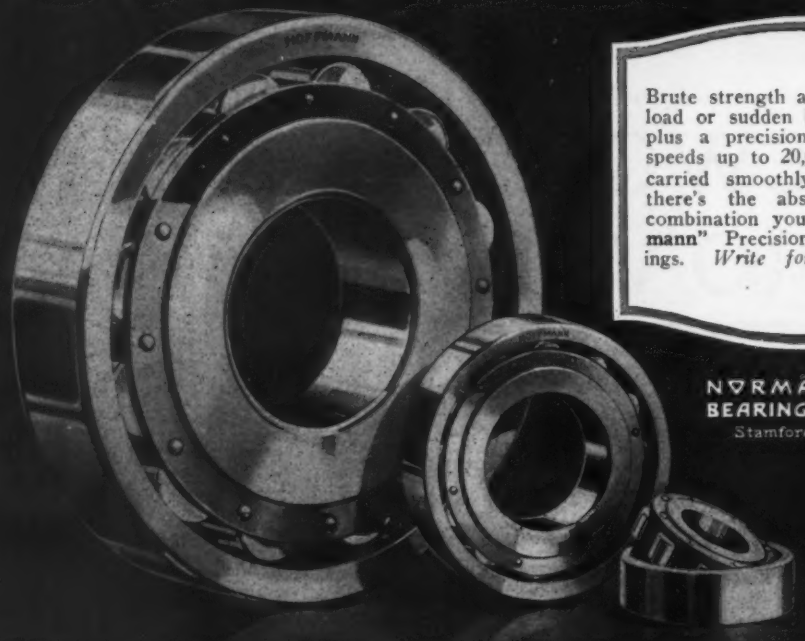

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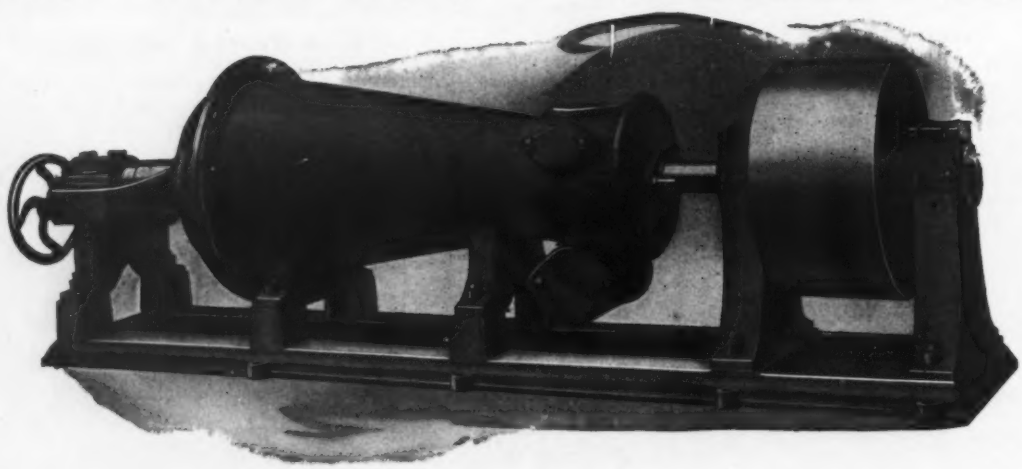

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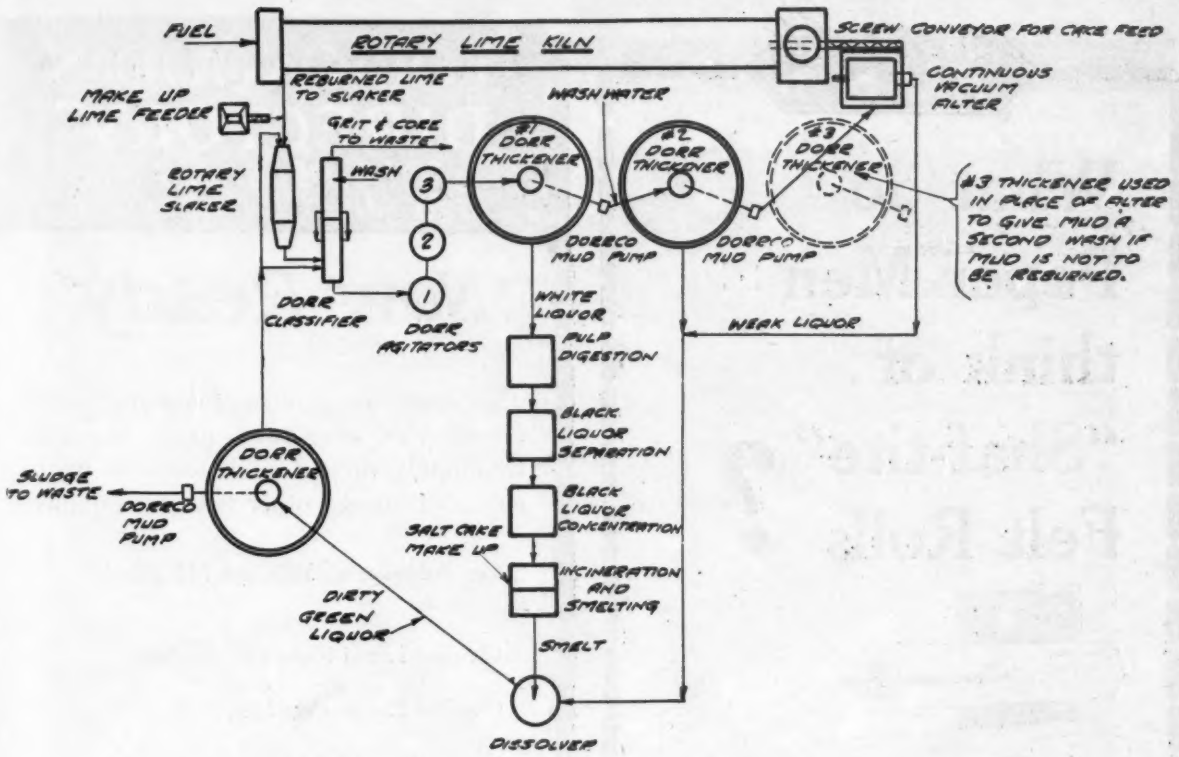

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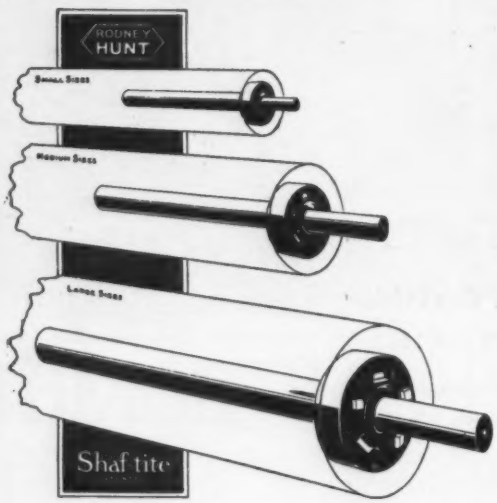

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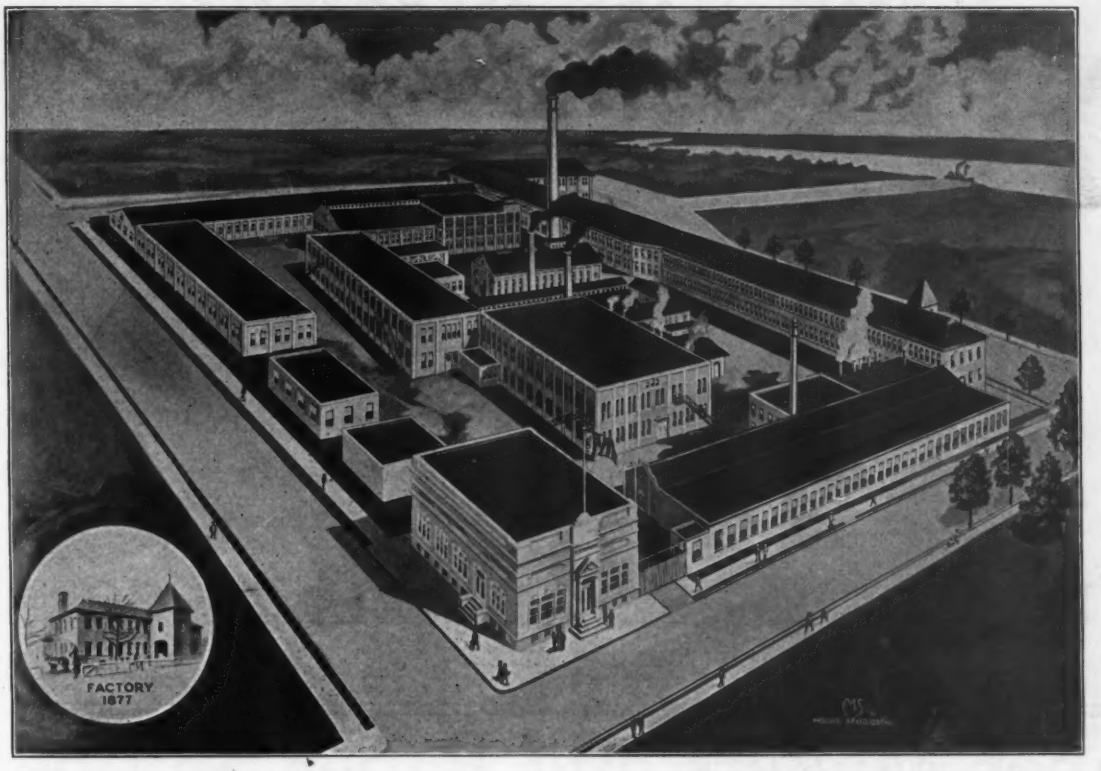

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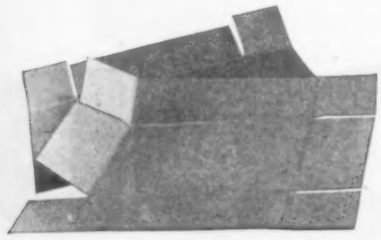

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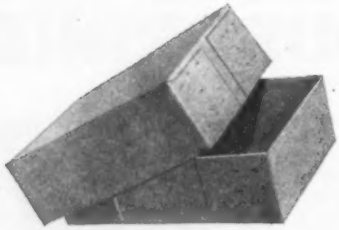

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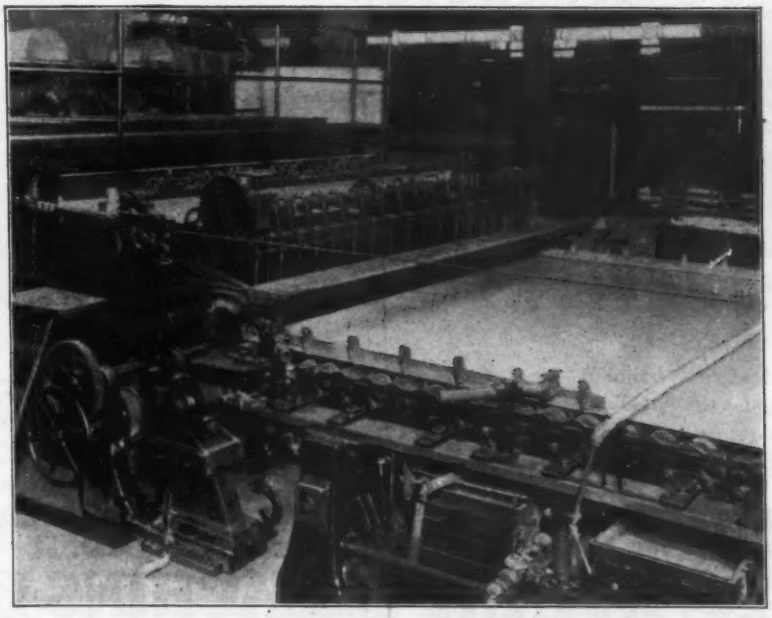

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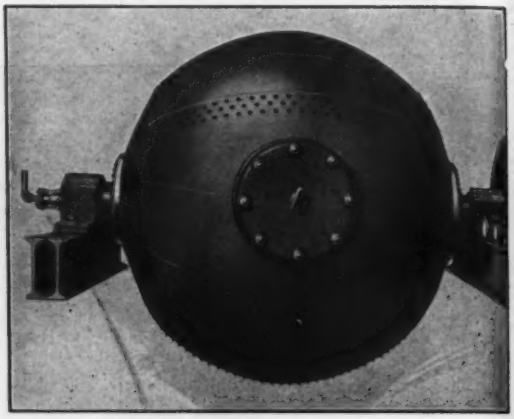

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for Years of Dependable Cooking and Bleaching

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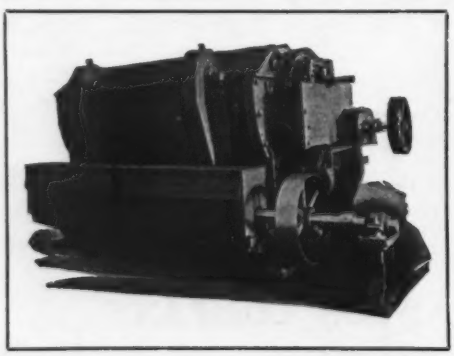

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"Moore & White" Screens produce quality paper whether used on Tissues, Kraft, Roofing Manilas or Book Paper. Lumps and slime spots are eliminated. Breaks on paper are thus prevented and continuous operation is assured.

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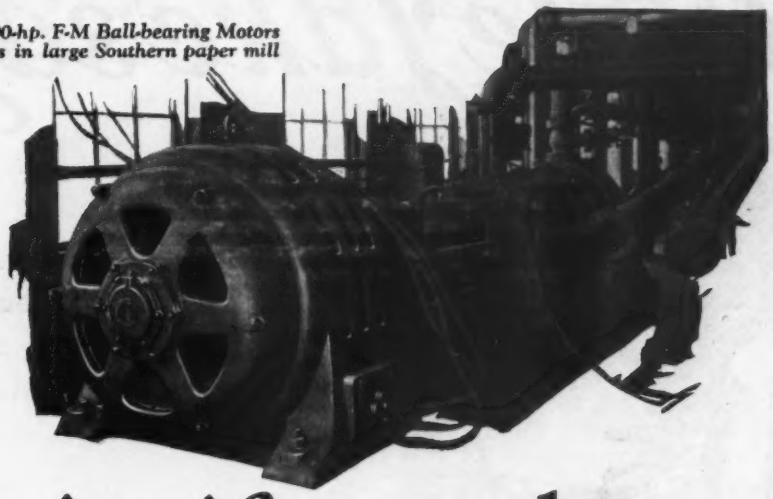
CATALOG ON REQUEST

1927

One of three 200-hp. F-M Ball-bearing Motors driving Jordans in large Southern paper mill



This significant change

pointing the way to motor users

PROTECTED

Enclosed, ventilated—the F-M Type EH Motor is the *protected* motor for the difficult application where excessive humidity or other severe conditions exist. Rigid, cast-iron frame completely encloses this machine, with flanged inlet and outlet openings provided for the attachment of ventilating pipes. Liberally rated and designed throughout for enclosed operation.

What is the meaning of this significant change in the motor industry today—the startling increase in *ball-bearing* motors?

Even a few years back the sleeve-bearing motor was acceptable to a large majority of motor users. But now "closed" specifications which exclude the sleeve-bearing motor are increasingly common.

There can be but one explanation—Motor users have discovered that *ball bearings* have removed the weakest point in an otherwise almost perfect machine. They have found that the sealed ball bearing is far less subject to injury from grit, dust, etc.—that grease-packed ball bearings end the lubrication problem—that the elimination of shaft wear, made possible by ball bearings alone, means more years of *better* service.

Pioneers in the building of a complete standard line of general-purpose *ball-bearing* motors, Fairbanks-Morse has obviously played the major role in this universal trend toward ball-bearing construction. There is every indication that the motor of the future will be a *ball-bearing* motor—like the F-M motor of today!

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28 branches in principal cities at your service

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"There never was anything made but that someone could make it worse and sell it for less."

Consumer KVP Satisfaction

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THERE IS ALWAYS A BEST IN PAPERMAKERS FELTS

TENAX IS THE BEST

Made Only By

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TENAX—THE LAST WORD IN FELTS **NEWFANE, N. Y.**

Norton Pulp Stones

Made for three and four pocket grinders as well as for magazine and continuous grinders.

NORTON COMPANY, Worcester, Mass., U. S. A.
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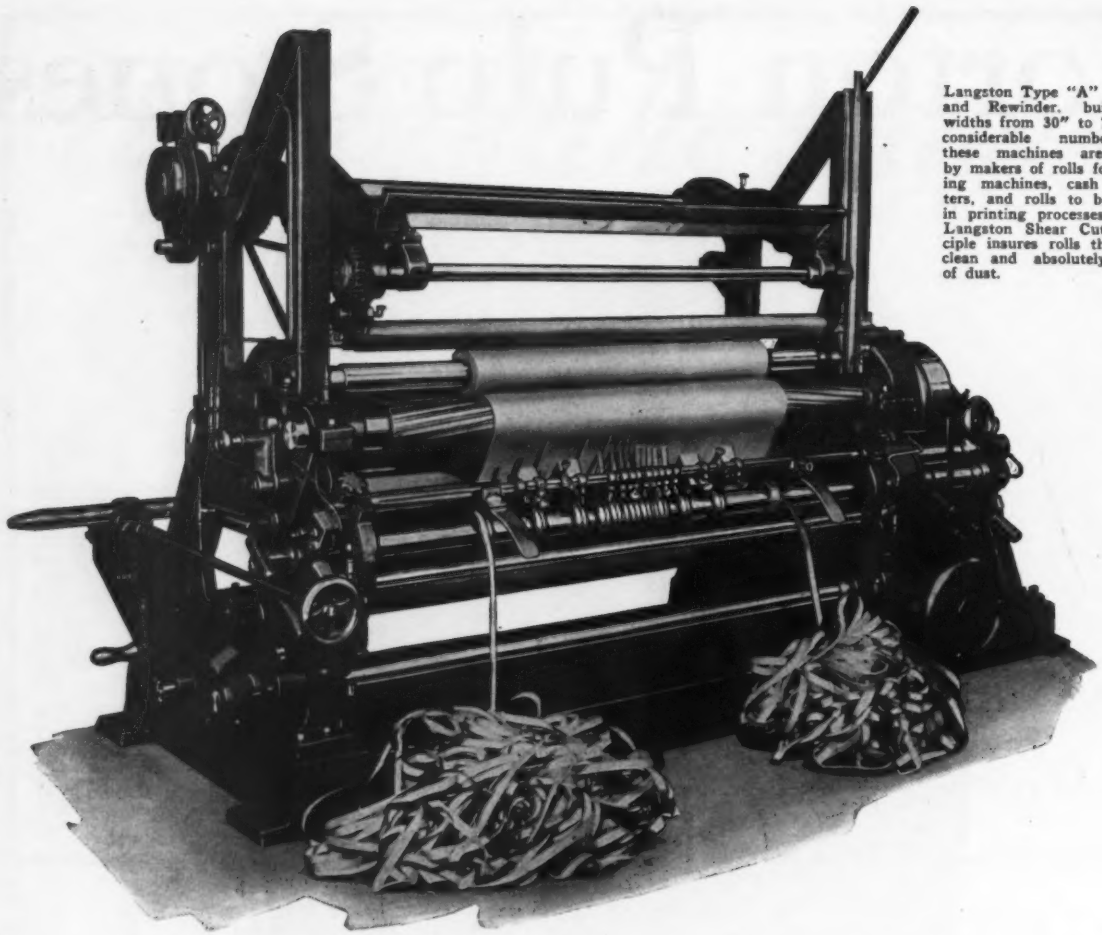
NORTON
PULP STONES



Langston Type "A" Slitter and Rewinder, built in widths from 30" to 72". A considerable number of these machines are used by makers of rolls for adding machines, cash registers, and rolls to be used in printing processes. The Langston Shear Cut principle insures rolls that are clean and absolutely free of dust.

For hard, smooth, *dustless* rolls —*you can't beat a Langston!*

TAKE a pair of shears and cut across a sheet of paper. The cut is even, has a clean edge, and of course, is without any trace of dust.

You get just that kind of cut from a Langston Slitter. The Langston Shear Cut principle is similar in action and effect to the cut produced by a pair of shears. And rolls made on the Langston Slitter are clean, smooth, and free of dust. No ragged edges. No uncut fibers to interweave and make the rolls difficult to separate. No slightest trace of dust or lint.

In any class of work in which rolls must be free of dust, the Langston Slitter simply cannot be beat. That is why makers of rolls for adding machines, for cash registers, rolls used in printing processes, and many other classes of work in which dust causes trouble, use Langston Slitters.

Every Langston Slitter, regardless of type or size, embodies the Shear Cut principle, and makes clean, dustless rolls.

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TRADE MARK
CAMACHINE
ROLL-WINDERS

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PAPER TRADE JOURNAL
ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-SIXTH YEAR

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PAPER TRADE JOURNAL

With Which Is Combined

PAPER

The Magazine of the Paper Industry

Vol. LXXXV, No. 2 — Thursday, July 14, 1927

Beaverbrook Not Interested in Corner Brook

British Publisher Denies Statement Attributed to Premier Monroe, of Newfoundland—Port Mellon, B. C., Kraft Pulp Mill, Again in Operation Following Six Years' Idleness—John R. McGregor Tendered Surprise Banquet on Occasion of 60th Birthday—Vancouver Kraft Mills, Ltd., Buy Port Mellon Plant

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., July 11, 1927.—Lord Beaverbrook, according to cable from London, has issued a denial of the statement attributed to Premier Walter S. Monroe, of Newfoundland, that the Newfoundland government has received communications from Lord Beaverbrook and from a large Canadian financial corporation intimating that they were interested in the negotiations between Newfoundland and the International Paper Company of New York for the purchase by the latter of the huge paper plant at Corner Brook, Newfoundland. Lord Beaverbrook says:

"I deny the statement that the Newfoundland Government has had any intimation from me that I would be interested in this mill. On the contrary, when the Newfoundland High Commissioner in London (Victor Gordon) called on me with this object in view I told him definitely and plainly that under no circumstances would I take any financial interest in the concern."

Mills Change Hands

Canadian Power and Investments, Ltd., have purchased for $35,000 the Fraser lumber mill property between Deschenes and Ayliner, Que., skirting the Ottawa river near the capital. It is said the company contemplates the erection of a news print mill of some 300 tons capacity daily.

After an idleness of six years the Kraft pulp mill at Port Mellon, B. C., involved in the liquidation of the Home Bank of Canada and of the Howe Sound Pulp and Paper Company, former operators, is again in operation. The mill has been bought outright by the Vancouver Kraft Mills, Ltd., a subsidiary of the Columbia River Paper Company, of Salem, Oregon.

Cotton from Wood Pulp

Dr. Harold Hibbert, head of the Pulp and Paper Division of the Forest Products Laboratories at McGill University, Montreal, speaking at the Chemistry convention recently, said, "Our method by which we can extend the usefulness of our pulp is by substituting it in Canada for cotton in all its forms. This is being attempted by the chemists of the Dominion to-day and it is feasible. The successful substitute of wood pulp for cotton would benefit Canada in many ways."

Laboratory Superintendent Resigns

W. Kynoch, superintendent of the Forest Products laboratories at McGill University, Montreal, has resigned, and has accepted an important position with the newly-established Forest Department in Michigan University at Ann Harbor, Michigan. His resignation is a consequence of the refusal of the government to keep three of the divisions of the laboratories at McGill, and to transfer them to Ottawa.

Meanwhile the work of demolishing the old laboratories building is under way, preparatory to the commencement of the construction of the new Pulp and Paper Building. The building will house the Pulp and Paper Division of the Forest Products laboratories, the Department of Cellulose and Industrial Chemistry of McGill University, and the Canadian Pulp and paper Association.

B. C. Pulp and Paper Co.

Lawrence Killman, president of the British Columbia Pulp and Paper Combpany (formerly the Whalen Pulp and Paper Mills) has returned from a trip to Japan, where he has been investigating the market for his company's products. Japanese demands fell off during the first two months of the year owing to the financial unsettlement in that country, but good improvement has since been shown. The mills have been running at a rate comparable with that of last year. The company is steadily improving the quality to its pulp, and there is some talk of developing pulp to be used in the manufacture of rayon.

Veteran Paper Man Honored

Friends of John R. MacGregor, president of the McGregor Paper Company, Ltd., of Montreal, came from as far west as Winnipeg to tender him a surprise banquet in the Windsor Hotel on Monday evening last on the occasion of his 60th birthday. Mr. MacGregor was born in St. Andrews, East Quebec, on July 4, 1867, three days after the Confederation of Canada. Presentations included a gold watch and chain, a silver flask, and to Mrs. MacGregor a basket of 60 American beauty roses.

Among those present, all connected with the paper industry, were: J. O. Chenevert, Three Rivers; Charles D. Fyrett, Toronto; John Nixon, Montreal; H. R. Risebrow, Montreal; J. H. Fetherstonhaugh, Montreal; Rollo Currie, Montreal; Robert Currie, Montreal; James Home, Montreal; Charles Phillips, Montreal: J. Aime Dery, Quebec; James McCulloch, East Angus; Leo E. Charles, Toronto; John R. Marshall, Peterboro; Harold Miller, Ottawa; W. B. Powell, Hamilton; H. D. Goldsborough, Toronto; Douglas Cooper, Montreal; Cecil de Wolfe Reid, Montreal; M. A. Milne, St. Lambert; R. Barker, Montreal; John S. Taylor, Hull; Henry Bell, Montreal; Fred Lancaster, Montreal; John Martin, Winnipeg; Harry E. Livingstone, Toronto; S. J. Frame, Toronto; Major Hall, Montreal.

Demand for Paper Not Apathetic in Philadelphia

Unseasonal Weather Blamed for General Depression in Consuming Industries—Some Improvement Noticed in Paper Stock Trade, Although Quotations Are Still Considered Below Normal—Local Board Mills Working on Full Time Schedule

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., July 11, 1927.—Just as the unseasonable weather of the spring months left a trail of dullness for the paper dealers, so the cooler and mild summer days are responsible for the apathy in the paper market in the current month. Whenever consumers are approached on the matter of paper supplies they state that the lack of demand for the spring stocks of all kinds of merchandise has held up business for many industries and that consequently there is no need for paper wares. Clothing manufacturers, textile trades, box manufacturers, knit good producers and other industries that comprise the large paper consumers are lingering along awaiting the turn of the tide before making purchases of their paper requirements. All these industries have been sufferers from the cold and unseasonable spring and early summer and have been left with large stocks of unsalable merchandise.

Paper Stock Shows Slight Improvement

Though the past six months have been recorded as the most unprofitable half year experienced by the paper stock trade within recent times, owing to the extremely low prices that have been paid for raw materials, the dealers are encouraged to look for a betterment with the turn of the mid year and the opening of new business accounts. The past week gave signs of the forecasted Fall improvements in the larger volume of orders for paper stock although quotations were firmly held to the levels of the past six months, the lowest recorded since the war days. While there was no boom in the demand for stock there was a broader list of mills buying from the local wholesale waste dealers in paper stock and rags.

Board Mills Become More Active

The paper board mills in the Philadelphia district have become more active after a curtailed operation that has been extended for more than two months by some of the larger producers of paper board in order to maintain a standardized market. The Container Corporation of America, which has been closed for the past week for a general overhauling of the mills, reopened on Monday on full time schedule. The mills of the Keikhefer Container Company, at Delair, N. J., have been placed on full time schedule, while the MacAndrews and Forbes Company, manufacturers of building boards, have been so besieged with orders for their specialties that it has been impossible to meet the demands of the consumers at the present time. The Gloucester, N. J., mills of the Hinde and Dauche Corporation, like the other container board manufacturing concerns in this section, have been kept on full time schedule.

Downingtown Paper Co. Operates New Machine

The Downingtown Paper Manufacturing Company, of Downingtown, Pa., which recently completed the erection of a new plant, has placed in operation its newly installed machine for the manufacture of paper boards. With the additional paper making machine the Downingtown mill will increase its capacity by one-third of the former output.

New Glassines For John M. Driver Co.

With the much increased space acquired through the occupancy of its recently constructed home, the John M. Driver Company is now prepared to augment its line of glassine paper specialties in bags and wrappings. The company has completely removed to its new location at 57th street and Lancaster avenue, where additional equipment in printing machines and bag making units have been installed for the increased production. The company is now adding materially to its lines of Christmas holiday glassine bags and fancy printed wrappings for the paper trade, food and confectionary manufacturers, and for allied consumers. There are many entirely new designs and grades of glassines adapted for the Christmastide needs that now are ready for trade samplers in anticipation of the holidays. Vice President and General Manager, John H. Rex has returned to headquarters after a weeks absence at the Pennsylvania Manufacturing Confectioners Convention held at Bedford Springs during the past week.

New Branch For Safepack Mills

Larger distribution and more adequate service for the various water proof wrapping papers manufactured by the Safepack Mills, of Millis, Mass., will be facilitated through the acquisition of a combination sales office and warehouse building in the Philadelphia trade. The Safepack Mills have taken possession of the three story structure at 217 Walnut street, and will remove there this week. Heretofore the Philadelphia trade has been served directly from the mills in Millis, Mass. A stock of waterproof papers will be carried on hand for immediate shipments where speedy service is demanded. The larger shipments will continue to be made directly from the mills, as in the past. There recently was effected the consolidation of the Boston sales offices and the mills just outside the Hub for the rendition of better service to the trade. Similar improved services will be effected here through the combination of the sales offices of the manager, Ralph T. Lichenstein, and the opening of a warehouse. The old offices at 230 Dock street have been abandoned.

Cherry River Develops Envelope Manila Grades

Having created a broad market for its line of envelope manilas, the Cherry River Paper Company, whose main offices are located in the Pennsylvania Bulding, in this city, is now featuring these specialties extensively among the envelope manufacturers of the nation and paper distributors having a wide patronage among the converters. The manilas are made in the Richwood, Va., mills, where a large acreage of forest supplies the pulp, and sanitary clear waters are obtained from streams on the vast tract of land owned by the company, for the manufacture of bleached and unbleached specialties. The Richwood mills are now producing a larger tonnage of envelope papers in both bleached and unbleached grades and durable quality and strength. The No. 1. Envelope Manila Substance 28, which has been developed within recent times, is notable for its pliability, non-curling strength retaining qualities, and is used by envelope manufacturers requiring unusual strength and durability.

Vici Athletic Club Holds Outing

With a diversified program of sports, the members of the Vici Athletic Club, the fraternity of the Thomas W. Price Company, 503 Ludlow street, joined in the annual outing and entertainment provided by the company on June 24 at the Brookline Square Club, Brookline, near Philadelphia. While the older and younger men of the staff grouped into teams for the baseball contest on the diamond at the Brookline Square Club there were many rooters lined up on the bleachers from the 75 employees and their friends who attended the yearly event. Others joined in the schedule of shuffle board, boating, billiard and pool contests, which made up the program before adjournment to the dining hall of the Club House, to partake of the good things in the seasonable banquet.

President Thomas R. Fort and his sons, with his business associates, Norman Fort, welcomed the workers at the dining table and warmly praised the members of the Vici Club for the spirit of cooperation and good will it created. Those who arranged the day's program of entertainment were the officers of the organization,

President William Simmons, Vice President Frederick Dubbs, Secretary Harry J. Smith and Treasurer Elmer Watson. Another outing will be held by the Vici Club in September. The sales staff of the Price company were among the Philadelphians attending the sales conferences of the Hammermill Paper Company held during the month in New York, and were accompanied by President Thomas R. Fort.

Butler Paper Co. Acquires Philadelphia Office

C. C. Stuart, trading as the C. C. Stuart Paper C mpany, with offices in the Jefferson Building, 1015 Chestnut street, is representing the Butler Paper Company, of New York, in the Quaker City. There is maintained a sales office only for the firm's local representation of its line of fine papers.

Whiting Patterson Issues New Catalogue

An elaborately designated price list and catalogue has been printed and is now ready for distribution to the patrons of the Whiting Patterson Company, 320 North 13th street, general paper merchants and converters. The new 1927 compilation contains the entire lines of the various branches of the paper business conducted by that firm, combined with the envelope department. There has been added to the lines of paper distributed by the company, the Fanfold book papers manufactured by the Miami Valley Coated Paper Company, of Franklin, Ohio, and the Double Surface Bond Papers with coated one side.

C. C. Holland Travels Western Mill Section

A tour of the Western paper mills has been completed by C. Clarence Holland, manager of the S. S. Garrett Paper Company, 259 South 3rd street. Manager Holland made the rounds of the paper manufacturing plants in Wisconsin and the Great Lake Region and returned by way of New York and Pennsylvania, taking in the mills en route to Philadelphia.

Greenduck Co. Opens Local Sales Office

A local sales office has been acquired by the Greenduck Company, of Chicago, Ill., manufacturers of metal specialties, badges, paper doilies, shelf papers and like converted wares. The Philadelphia headquarters are under the management of Richard O. Spinoza. The firm manufactures metal and badge specialties on a large scale, producing the buttons for the Red Cross Drives, Liberty Loan and other big national campaigns and maintains a large paper converting plant in conjunction with its Chicago headquarters for the production of shelf paper, doilies, lace papers, and other specialties of allied lines used by hotels, clubs and other large consumers.

Paper Stock Concern Disbands

The former business conducted by Biles & Berman, paper stock dealers, has been dissolved, and the warehouses and sales department at 620 South 15th street given over to other purposes, with the retirement of W. G. Biles from the company. Mr. Biles has been engaged in the paper stock business in this city for more than 25 years and was former head of the large paper stock concern. The Universal Paper Company, associated with the old firm of the Philadelphia Paper Manufacturing Company, now known as the Container Corporation of America, purchased the supply of stock for its board making plant. Mr. Biles will retire from the paper stock industry while Barney Berman has engaged in the paper stock and rag business on his own account. The Berman Paper Stock Company will conduct its business at 716 North 23rd street, the warehouses at the 15th street address being owned by Mr. Biles and devoted to his new interests.

R. M. DeCew Goes to Port Alice, B. C.

Reginald M. DeCew who has been chemist at Powell River Paper Company, Powell River, B. C., has become assistant superintendent of the Port Alice mill of British Columbia Pulp & Paper Company. Mr. DeCew was formerly night superintendent of the Kenogami sulphite mill of Price Brothers & Company and later was associated with Process Engineers, Inc., New York.

W. H. Sullivan Presented With 1,000 Shares Stock

BOGULSA, La., July 11, 1927.—What is considered the most signal and the most substantial honor ever conferred on an executive of an industrial concern is that received by the Hon. W. H. Sullivan, Mayor of Bogalusa and vice-president and general manager of the Great Southern Lumber Company, in Buffalo, N. Y., recently, at a dinner commemorating the twenty-fifth anniversary of the founding of the company and the fiftieth birthday of its president, Col. A. C. Goodyear, when Col. Sullivan was presented with one thousand shares of stock of the company in appreciation of his years of faithful and loyal service.

The dinner was held at the home of Mrs. Ellen Conger Goodyear, widow of C. W. Goodyear (one of the founders of the Great Southern Lumber Company), and mother of Col .A. C. Goodyear, president; C. W. Goodyear, treasurer, and Bradley Goodyear, director of the Great Southern Lumber Company.

While it is often the custom for industrial concerns to make presentations of stock to officials during the organization and the promotion periods of these industries, it is a hitherto unknown event for an executive to receive what amounts to a cash appreciation of $140,000.00, after the success of the concern has been conclusively assured.

The complete unexpectedness of the donation, and its unusual character has caused wide comment, not only in Bogalusa and Louisiana, but throughout the entire country.

Mayor Sullivan had been requested to attend the directors' meeting and anniversary ceremonies, but had asked to be excused, as his arduous duties as chairman of the Louisana Rehabilitation Commission had drawn largely on his time and he felt that his presence at Buffalo could be dispensed with. He was told, however, that his presence was needed.

At the conclusion of the dinner, Col. A. C. Goodyear arose and reviewed the history of the service which Col. Sullivan had rendered the Goodyear and the Great Southern Lumber Company, having been associated with the Goodyear family for a period of forty-five years, and with the Great Southern Lumber Company since its organization a quarter of a century ago. Simultaneous with the presentation of the stock certificate of one thousand shares of the company, Colonel Sullivan was given a note to sign, stipulating payment of $100,000.00, the par value of the stock.

Without hesitation Col. Sullivan signed the note, and before the ink had dried it was snatched from his hand, a match applied and dropped into a waiting bowl, and all record of any obligation was destroyed.

Discontinue Combined Sales Offices

The Claremont Paper Company Inc., and the Groveton Paper Company, Inc., sent out the following advice to the trade under date of July 8 announcing the discontinuance of their combined sales office:—

The sales of the Claremont Paper Company, Inc., will continue under the management of Mr. G. M. Wetmore, at 33 West 42 street, N. Y., and our Western customers will continue to be served by Mr. C. L. Winter, whose office is in the Rookery, Chicago, Illinois. Until further notice our New England trade will be served through Mr. K. H. Ways, whose office is at 80 Federal street, Boston, Mass.

All orders and correspondence pertaining to sales, shipments, etc., of the Groveton Paper Company, Inc., will be handled by its new sales office, 527 Fifth avenue, New York, N. Y., on and after July 11, 1927.

To Be Superintendent of Northwestern Pulp Co.

Sigurd Norman, formerly sulphite superintendent of St. Lawrence Paper Mills, Ltd., Three Rivers, Que., has become plant superintendent of Northwestern Pulp and Paper Company, Tacoma, Wash.

Wisconsin Paper Mills and Stream Pollution

State Board of Health Commends Steps Taken by Paper Industry to Alleviate Situation—Report States Plants Must be Equipped to Recover Fiber Waste and Thus Prevent Injury—Advises Search for Method to Eliminate Sulphite Waste Liquor

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., July 8, 1927.—In a report 328 pages long, paper mills of Wisconsin are cited by the state board of health and the state conservation commission as one of the chief causes of stream pollution, but they are commended rather than condemned.

Expenditures of $500,000 in equipment, and $22,000 in research by the paper industry have helped the situation, it is shown. Tests made on the Fox, Wisconsin and Plover rivers show that the water is robbed of oxygen in the paper mill areas, thus destroying large quantities of fish.

To prevent injury, the report says, mills must be equipped to recover fiber waste so that the amount poured into streams will be harmless. Sulphite waste liquor is the main agent in reducing oxygen, and this offers a serious problem. The report advises energetic research to disclose a method by which it may be eliminated.

The same course is advised with respect to sulphate wastes, though these are not so dangerous to streams. Ponding and aeration are advised, but the report suggests that solution of the sulphite problem lies in utilization as fuel in the manufacture of valuable by-products rather than in treatment.

Addition to Menasha Plant

An addition costing $18,000 is to be built by the Menasha Printing and Carton Company at its main plant at Menasha, Wis. The new unit will be of fireproof construction and will house a boiler room. Modern boiler equipment is to be installed as soon as the building is erected.

More Mechanics for Moloch Plant

Thirty mechanics are being added to the force of the Moloch Machine and Foundry Company, Kaukauna, Wis., to increase production to meet unfilled orders, according to announcement of R. M. Kanik, president and manager. The plant makes automatic stokers, paper mill machinery, and other products. The force hereafter will consist of 140 men, the largest the company has had. The foundry building, which was destroyed by fire, is now almost completely enclosed, and the crane and other equipment will be re-installed. A carload of lathes and milling machines is being set up in the plant.

Safety, Hygiene and Welfare

Judson G. Rosebush, president of the Patten Paper Company, Ltd., Appleton, and the Northern Paper Mills, Green Bay, is chairman of an industrial institute which will be conducted this week end at the Y. M. C. A. camp at Lake Geneva, Wis. The purpose of the institute, under Y. M. C. A. auspices, is to provide training, instruction and inspiration for men in shops who can promote a constructive program for workmen. Safety, hygiene and welfare of the younger boy in industry will be discussed. The principal speakers will be Robert W. Campbell, attorney for the United States Steel Corporation, Dr. Frank A. Poole, of the Michigan State Board of Health, and Clarence C. Robinson, secretary of the national council of the Y. M. C. A.

Interlake Mill Offers Park to City

An offer of the Interlake Pulp and Paper Company, Appleton, Wis., to provide the city with a new public park, was accepted eagerly when a group of citizens met C. K. Boyer, manager, to discuss the project. Petitions were signed by one hundred persons urging the plan to be carried through. The company will improve the land formerly used as an athletic field, and will equip it for a family park. The land is near the Interlake mill, and the park will be largely for the benefit of employees who live in that locality.

Milwaukee Paper Men Entertained

A number of paper merchants from Milwaukee paid a visit to mills of the Fox River Valley this week, making inspection tours and holding business conferences. The visitors were entertained by owners of wholesale paper establishments in Neenah, Menasha and Appleton. A dinner was given for them at the Conway Hotel, Appleton.

Anglo-Canadian Pulp Mills Buy Stokers

The Anglo-Canadian Pulp and Paper Mills, Limited, Quebec, Canada, has purchased for installation in its new plant at Limoilou, P. Q., three Taylor stokers similar to the stokers being supplied by the American Engineering Company, of Philadelphia, for the extension to the Saginaw River plant of the Consumers Power Company at Zilwaukee, Mich., the Edgar Station of the Boston Edison Company, and the National Sugar Refining Co., Long Island City.

These stokers, which will underfeed coal a distance of 16 feet, will be nine units wide and will be equipped with large rotary ash discharge rolls. They will be installed under 1250 hp. boilers using 395 lb. steam pressure. Normal operation will be at 220 per cent of boiler rating, but the stokers will be able to fire the boilers at 330 per cent of rating when necessary. This is equivalent to the evaporation of 83,300 lbs. of steam per hour continuously or 125,000 lbs. per hour for peak loads. Ordinarily three boilers will be kept on the line, but when necessary two boilers will be able to carry the entire load.

Dominion coal of 13,300 B.t.u. will be burned with air preheated to 320°-350° F. This coal has an ash that fuses at 1850° F, is high in sulphur and iron content and is regarded as a very troublesome coal to burn.

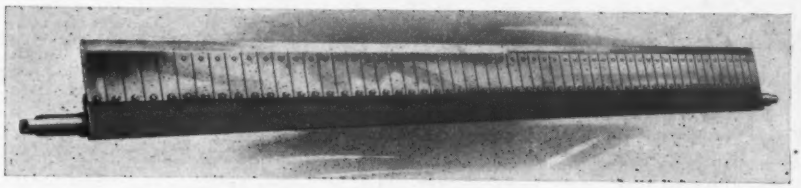
Water walls supplied by the American Engineering Company will be used on the side walls, bridge wall and front wall. Those on the side wall will be of a newly developed type, consisting of cast iron blocks bolted to tubes that parallel the slope of the stoker fuelbed.

A hydraulic drive has been developed for these stokers in which a Hele-Shaw Hydraulic Pump coupled to a Hele-Shaw fluid motor are utilized as a hydraulic transmission giving an infinite number of stoker speeds from zero to a maximum. In addition to the speed control of the entire system of rams that is obtained in this way, there is the usual control of the speed of individual sections of the fuelbed with reference to adjacent sections that is standard construction on this stoker.

Another new feature in these stokers is the use of steel supporting plates that extend the entire distance from the front of the stoker to the bottom of the ash pit without intermediate columns. Rollers that support the bases of these plates allow for the expansion and contraction of the stoker structure as a whole.

The deep ash pit provides for burning out practically the last traces of combustible from the ash. Hele-Shaw Hydraulic Pumps will also be used for operating the ash discharge rolls.

Through the office of Mr. George F. Hardy, Consulting Engineer for the owners, a general contract covering practically the entire boiler room equipment has been awarded to the Affiliated Engineering Companies, Limited. of Montreal, who handle the Taylor Stoker in Canada.



Breast Rolls

Dryers

Calender Rolls

Wire Rolls

Cooling Rolls

Press Rolls

Coating Rolls

Smoothing Rolls

Yankee or M. G. Dryers

Sizing Rolls

Put a Vickery Doctor on every one of them

BIRD MACHINE COMPANY

South Walpole : : Mass.

922

Toronto Paper Turnover Ahead of Last Year

Consumption of News Print and Book Papers Assisted by Diamond Jubilee Confederation Celebration—Central Section of Canadian Paper Trade Association Meets Here This Week A Number of Important Matters To Be Discussed

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., July 11, 1927.—Business in June generally was a little ahead in the paper line of the corresponding period in 1926 and the record for the first six months of 1927 shows that, in the aggregate, the turnover surpasses the initial half of last year. Trade so far this month, after the Confederation holiday celebration, is starting up as well as can be expected, but July will, from present indications, be a seasonably quiet period. Mills continue busy and there was greater consumption of news print and book papers than usual in June as most of the weekly and daily publishers of Ontario issued special Diamond Jubilee Confederation numbers, some of which were very elaborate, reflecting the highest credit on the part of the producers.

During the coming week, there will be an important meeting of the central section of the Canadian Paper Trade Association in Toronto. On July 13, the visitors will be entertained at dinner and golf by the paper mills and, on July 14, there will be a conference between the manufacturers of book and writing papers and the Mills Relations Committee, when several important matters will be taken up.

Sir William Gage's Will Construed

When Sir William Gage died in Toronto in January, 1921, he left as part of his estate, 1,256 shares in the W. J. Gage Company, Ltd., manufacturing stationers and paper dealers. The total number of shares issued was 4,443. Under his will, Sir William directed that the shareholders of the company should be given the opportunity of purchasing all his shares, and unless they could agree on the number each should take, they should be distributed in proportion of the shareholders' holdings.

In answer to questions propounded by the executors, Justice Grant, Toronto, has given judgment holding that all shares owned by the estate must be sold to carry out the scheme proposed in the will and, until all the shares are sold and paid for, the executors are to retain the control of the company. Justice Grant also declares that the intention of the will is that no official or employee of the company, who might be a purchaser of any of the shares belonging to the estate, should be permitted to obtain an increase in his salary until all the shares should have been fully paid for.

Justice Grant refuses to pass an opinion on a draft agreement submitted, saying that this is not a matter for the court, but falls within the duties of the trustees and their solicitors. He holds that the election of shareholders to take shares does not constitute a binding and enforceable contract. He also holds that it is not necessary for the executors to offer the shares again to the shareholders, but that they may dispose of them by other proper methods. Only shareholders of register at the date of the death of Sir William have any right to purchase, though they may transfer shares so bought to others.

Settlers Get Pay for Pulp Wood

Settlers in Northern Ontario, who have had claims for pulp wood sold to the Mattagami Pulp and Paper Company, now defunct, are to get their pay, after waiting for seven years. Charles Hurdman, of Toronto, representing the Abitibi Fiber Company, purchasers of the assets of the Mattagami Pulp and Paper Company, was in Timmins lately attending a meeting of the settlers for the purpose of investigating the individual claims. In all, 53 settlers are affected, and the total claims adjusted amount to over $25,000, the average claim per settler being around $435. During the winter of 1920-21, the Mattagami Pulp and Paper Company purchased from settlers some 15,683 cords of pulp wood, the total number of contracts being 66. The average price per cord contracted for was $10.62 and, in most cases, the pulp wood was paid for in notes. In 1921, the Mattagami Pulp and Paper Company went into liquidation, leaving the notes in the hands of the settlers valueless. From 1921 to 1923 operations were carried on under a receivership for the purpose of liquidating bankers' securities, which allowed the undertaking to be continued as a going concern. Subsequent to that date until recently the operations were conducted on behalf of first mortgage bondholders. Last fall it was announced that the assets of the defunct company had been purchased by the Abitibi Fiber Company, a subsidiary of the Abitibi Power and Paper Company.

Dr. Howe Heads Forestry Board

The many friends of Dr. C. D. Howe, who is Dean of the Faculty of Forestry, University of Toronto, are congratulating him on his recent appointment as chairman of the new Forestry Board of Ontario, of which C. R. Mills, assistant forester of the Department of Forestry, Toronto, has been made permanent secretary. The recommendations to the government request a classification of the forestry lands from agricultural lands in the province of Ontario, the establishment of forestry stations and nurseries in Northern Ontario, the determination of what forest practice is best suited to the land in question and supplying planting stock for unproductive Crown areas. Other matters, which will be taken up by the Forestry Board, are a survey of the non-productive lands of the province and the establishment by the Government of demonstration forests for the purpose of ascertaining what cutting methods will lead to the natural perpetuation of the forest crop. The Board is also drafting a forest research program and will study the development and reproduction of pulpwood on Crown lands and on the lands of license holders of the province.

Notes and Jottings of the Industry

At a regular meeting of the Board of Directors of the Spanish River Pulp and Paper Mills held in Toronto recently, George H. Mead, of Dayton, Ohio, the president, presided and the usual dividend was declared on the common and preferred stock.

Charles H. Tanner, who was the representative in Toronto of the Strathcona Paper Mills, of Strathcona, Ont., died very suddenly recently in his 38th year.

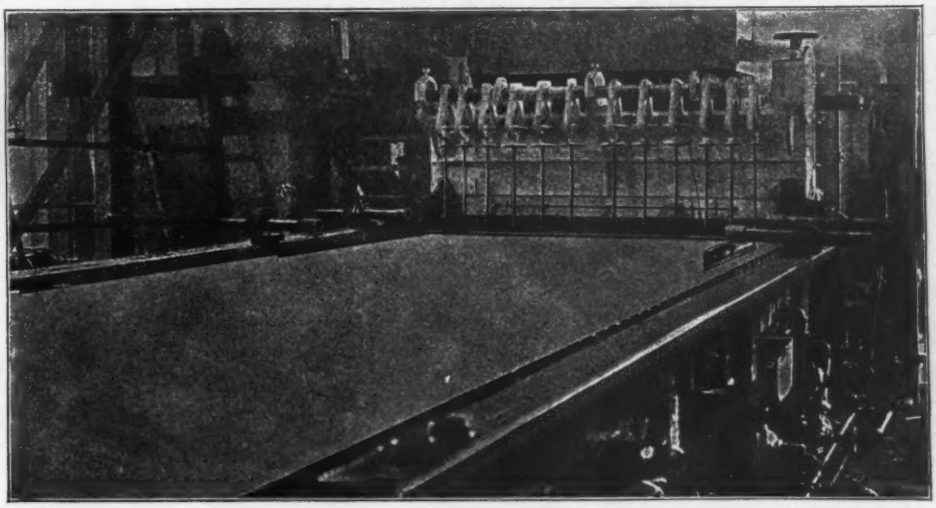
H. A. Goldsbrough, who represents the Hodge-Sheriff Paper Company, Toronto, has returned from a business trip to Winnipeg and other points west.

Robert Holmes, Surveyor of Customs, Toronto, and wife, recently celebrated their golden wedding. Both are in good health and Mr. Holmes received the congratulations of a large number of paper men, he being, for many years, a publisher in Clinton, Ont.

United Paper Mills, Toronto, are sending out attractive folders illustrating "Maidstone" leaves and coverings in different colors, leaf weight, covering weight and heavy covering weight, in the various sizes and on the new one thousand sheet count.

L. E. Dawe, of the C. Beck Manufacturing Company, Toronto, recently won a prize of a fountain pen for pointing out certain

(*Continued on page 26*)



No-Deckle Strap Convenience and Economy Pay!

The No-Deckle Strap Arrangement effectively does the work of the former expensive and cumbersome deckle strap equipment. It is easily installed on the ordinary paper machine and it can be placed on machines having special devices carried above the wire as used in the making of special papers—blends, marbles, cheviots, etc. The weight of the deckle straps is entirely eliminated and the wire with its clean, open sweep supports only the stock passing over it.

Deckle changes can be made while the machine is running without cutting into production time. Instant control is obtained over the width of the sheet with very little effort. There is no tendency to wear the wire and much time is saved in making wire changes. In removing deckle straps, it is apparent that an increased wire surface is available in making maximum width of sheet. This sometimes is a very important item to the paper manufacturer when he finds that his machines are too narrow by a few inches to accept orders for a certain sized trimmed rolls. Let us give you complete information about No-Deckle Strap efficiency.

VALLEY IRON WORKS CO.
APPLETON, WISCONSIN

New York Office: 350 Madison Avenue
Western Mfg. & Sales Div., Smith & Valley Iron Works Co., Portland, Oregon

Paper Business Generally Quiet in Boston

Prevailing Conditions Considered Normal for Season of Year—Quotations Remain Steady and Practically Unchanged—Many Mills Resume Operations After Holiday Shut Down—Bright Outlook for Resumption of Activity in Early Autumn

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., July 11, 1927.—The paper market here is generally quiet, a normal condition at this time of the year. Prices, however, are firm. No change of moment has taken place in quotations of fine papers. In the box board market, business has been no better than "medium." The lull before the Fourth has continued in some quarters, largely because a good number of the members of the trade are away. Most mills resumed operations today after a shutdown of a week. Prospects are good for resumption of greater activity by September.

In paper stock, buying has eased off since the last week in June. Prices are practically unchanged, but so low that packers are not offering them to dealers, according to reports.

In new domestic rags, dark cottons are moving at $1.60 a hundred pounds. Old domestic rags are firm. No. 1 grade of roofing rags is now quoted up to $1.80 f.o.b., Boston. Some dealers in rags state that there is a little selling to regular customers, but that it is difficult to get new business.

A. E. Ham's Long Record in Paper Trade

Thirty-five years in the paper business, rising from office boy to president in 25 years and now at the head of a business which he founded seven years ago this month, is the record in brief of Arthur E. Ham of Arthur E. Ham & Sons. Mr. Ham began as office boy in 1892 for A. Storrs & Bement Company, after graduating from High School the same year. He worked successively in the accounting, order, and sales departments, performing his duties so efficiently that he was elected secretary of the Company in 1913 and president in 1917.

In July, 1920, Mr. Ham started his present business, opening an office in the Rice Building at 10 High street, and using one floor for stock at 40 Purchase street. Herbert C. Ham, his oldest son, became associated with Mr. Ham, Sr., in 1922, after completing his studies at the Massachusetts Institute of Technology. James L. Ham, his next oldest son, joined them in 1923, and A. Lawrence Ham, his youngest son, early in the present year.

Beginning with a few specialties in 1920, the firm now carries a complete line, including practically all requirements of the printer, publisher, or box maker. The concern has doubled the original amount of space, in both offices and warehouse.

Arthur E. Ham & Sons from the very beginning have taken an active interest in every movement to promote the welfare of the paper and allied trades. At the time of the Boston Graphic Arts Exposition, held here, Mr. Ham, Sr., was treasurer and one of the directors of that organization. Mr. Ham and his sons are members of the New England Paper Merchants Association, National Paper Trade Association, and the Boston Club of Printing House Craftsmen.

News of the Industry

The American Writing Paper Company has issued a particularly good portfolio of business papers to be mailed direct to their New England customers. The Windsor Locks Division of the American Writing Paper Company is to be shut down from August 1 to 8.

Stone and Andrew, Inc., have added to their lines the Resolute Ledger, manufactured by the Neenah Paper Company, at Neenah, Wis., and the Mercantile Ledger made by the Parsons Paper Company, Holyoke, Mass.

Norman Harrower, head of the Fitchburg (Mass.) Department of Linton Brothers Company, and W. R. Ingersoll, of the Dill and Collins Company, Philadelphia, were in Boston last week.

Trimbey Machine Works Busy

GLENS FALLS, N. Y., July 11, 1927.—The Trimbey Machine Works, of this city, which specializes in pulp and paper mill equipment, is undergoing one of its busiest periods with the plant operating on a capacity basis. Orders now on the books are sufficient to keep the plant operating at top speed for the next five months.

Most of the machinery produced at the Trimbey plant is the invention of the owner, Edward J. Trimbey. The product includes consistency regulators, metering systems and float valves.

Products of the Trimbey plant are being shipped abroad with great frequency and it is said that Trimbey machines are now in use in almost every country of the world. Scandinavian mills especially are utilizing the Trimbey products. On July 1 a shipment of two metering systems and four consistency regulators was sent to the Lorentzor and Wettre Paper Company, of Oslo, Norway. Work is now under way on an order of four metering systems and six consistency regulators for one of the large pulp and paper manufacturing concerns in Sweden.

T. A. Gastanguay, superintendent of installation for the company, recently returned from Europe after a seven months' absence during which he installed Trimbey machines in pulp and paper mills in several countries. The company is now maintaining sales representatives in Norway, Sweden, Germany, Paris and London. The record of the company during the past year or two includes shipments to Italy, Holland, Japan, Finland, Switzerland, Roumania, England, Denmark, Mexico, and other countries.

The consistency regulator, an invention of Mr. Trimbey, is valued at from $575 to $750 per machine and is designed to keep the density of the pulp stock even. The metering system, another Trimbey invention, sells from $5,000 to $11,000 per unit. It permits control of the ratio of ingredients used in the mixture during the papermaking process.

As an indication of the greatly improved conditions existing in the pulp and paper industry an official of the Trimbey Company stated that the present year's business to date is greatly in excess of last year. The present outlook is that the plant will continue to operate at capacity for the remainder of the year. At present the plant is sold up to capacity until November.

TORONTO PAPER DEMAND AHEAD

(*Continued from page 24*)

typographical errors in "B. P." which is the monthly publication of the Bryant Press, Toronto.

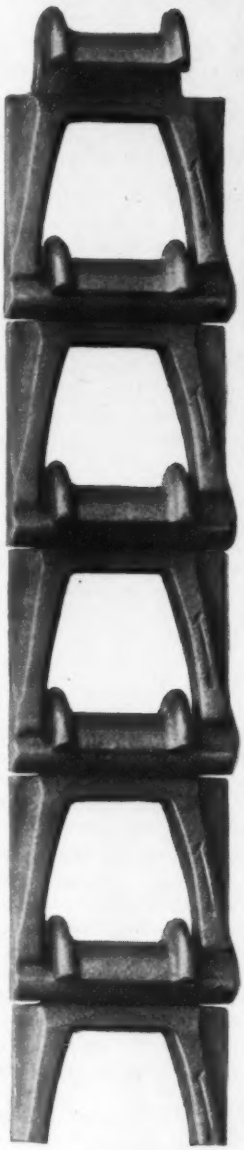
Norman McCullough, sales manager of the Brompton Pulp and Paper Company, East Angus, Que., was a recent visitor to Toronto.

The annual outing of the Printing Pressmen's Union of Toronto, which was organized in 1882, was held at Island Park, Toronto, on July 9, and was largely attended, a number of paper men being present. An interesting program of sports and games was conducted for which valuable prizes were presented.

A. H. Chitty, of Sault Ste. Marie, treasurer of the Spanish River Pulp and Paper Mills, was a visitor to Toronto lately on his way to Montreal on business.

Another record has been broken in production at Iroquois Falls by the Abitibi Power and Paper Company when, for the week ending June 26, the daily average production of news print at the mill was 550.28 tons, the previous high showing being 549.54 tons.

Jeffrey Chains for Every Service



Jeffrey Detachable Chain for drives, conveyors and elevators. Quick replacements.

Unloading the Digesters

This Jeffrey 156 Malleable Roller Chain on the straw conveyor stands up under the severe tension of a compound curve.

The Ball Brothers Glass Company installed this conveyor in their strawboard plant at Noblesville, Indiana. It takes the wet straw from the digesters to the storage rooms, changing its level twice without the aid of extra sprockets.

The malleable rollers running on steel tracks give long wear and smoothness to the conveyor.

Jeffrey Chains have served in strawboard plants for forty years handling both wet and dry straw.

The Jeffrey Manufacturing Company

931-99 North Fourth St., Columbus, Ohio

New York, Buffalo, Chicago, Charleston, W. Va., Rochester, N.Y., Philadelphia, Milwaukee, St. Louis, Pittsburgh, Scranton, Pa., Denver, Salt Lake City, Boston, Cincinnati, Los Angeles, Birmingham, Cleveland, Detroit, Charlotte, N.C., Montreal

50 YEARS OF SERVICE TO INDUSTRY

JEFFREY

MATERIAL HANDLING EQUIPMENT

Jeffrey Products

Elevators—Conveyors
Portable Loaders
Coal and Ashes Handling Equipment
Skip Hoists
Chains and Attachments
Sprocket Wheels—Gears
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Sand and Gravel Handling, Washing and Screening Equipment.
Locomotives
Coal Mine Equipment
Tipple Equipment
Ventilation Fans

The Role of Research in Forestry*

By Ralph S. Hosmer, Professor of Forestry, Cornell University

Forestry has witnessed many advances since it first took its place, a half century ago, as one of the officially recognized activities of the Federal Government. Much has been accomplished since then. Also, with the passing decades, certain phases of forestry work have come to stand out as deserving especially to be emphasized.

During the past year attenion has been centered on the vital part that forest research has to play in establishing a sure foundation on which to rest forestry practice. Proposals have come from entirely responsible sources that the financial support given annually to forest research be increased five-fold, or to a total of from $9,000,000 to $12,000,000. The support of forest research has become a national issue. It is not unlikely that the year 1926 will be remembered as a turning point in the history of forestry in America.

The Primary Purpose of Forestry

The primary purpose of forestry, in every country, is the maintenance of a perpetual timber supply. The forest is the only source of wood in commercial quantities. It also serves many other useful functions. Some of these may locally transcend in importance the service the forest renders as the producer of timber and other forest products. But essentially the job of the forester is to grow trees, of kinds that shall be of the greatest economic value to man. Further it is his business to make the forest yield the greatest possible amounts of high grade material in the shortest practicable time. To do this requires knowledge, technical skill, and the exercise of trained judgment. Because its practitioners must possess these qualifications forestry is justly recognized to be one of the professions.

Knowledge of the forest implies systematic and intensive study of a great variety of problems. The forest is a complex community of many forms of life. Its development is influenced by a multitude of factors. On every hand unanswered questions still await attention. These problems can only be solved through scientific research. Consequently, to attain the goal at which he aims, the forester must base his work on the solid foundation of an understanding of natural laws, and on a body of established facts, such as can only be got as the result of exact and thorough investigation.

Popular Interest in Forestry

Popular interest in forestry is an excellent thing. Whenever a group of people plant trees they have done something worth while. It is not difficult to learn how to do such a task well. To bring to maturity a fully stocked forest of high grade timber is not so easy. But if we are to realize the objective that we have set up as our National Forest Policy, to do just this becomes the duty of the forester. In undertaking it he needs all the help he can get from specialists working in varied branches of science. Mother Nature uses many servants. The ways in which they do her bidding are secrets that are not easily found out.

The truth of this statement has been demonstrated in the case of agriculture. The rapid advances that have been made in that field in the last half century are primarily due to the application of the results of the scientific study that has been carried on at the Agricultural Experiment Stations and in the Research departments of industrial corporations.

The total area of land in the United States devoted to productive agriculture is around 503,000,000 acres. The forest land, non-agricultural in character, totals about 470,000,000 acreas. The industries that are dependent on the forests make up collectively one of the first four groups of our national industrial units. But notwithstanding the dependence of the nation on an ample and continuing supply of forest products, the amounts of money annually made available for forest research are pitifully meager.

By way of contrast the annual expenditure for agricultural research is from $20,000,000 to $25,000,000; for industrial research of all kinds, $75,000,000; while for research in forestry the annual total at present probably does not exceed $2,600,000.

A Comprehensive Report

With the purpose of bringing the need for forest research clearly and squarely before the nation, a Committee of the Washington Section of the Society of American Foresters brought out in November 1926 a comprehensive report of 252 pages, under the title "A National Program of Forest Research." The committee was headed by Mr. Earle H. Clapp, Assistant Forester in charge of the Branch of Research of the U. S. Forest Service. The report is to be regarded as a contribution from the Society of American Foresters, the professional body of the technically trained foresters in the United States. The American Tree Association generously cooperated in this project by printing the report, without cost to the Society.

This report brings out in clear and lucid fashion the situation in forest research as it exists today and leads one to the inescapable conclusion that ample financial provision for such work is not only needed but absolutely demanded in every branch and subdivision of forestry. The major part of the report is taken up with a statement of where and why research is needed in forestry. In a comprehensive but nevertheless concise summary it enumerates a vast number of projects that are now under way or which should be undertaken. To accomplish all that is suggested would require years of investigation by a small army of research men working in many branches of the field of science. It is an illuminating presentation of what is in truth one of the most important issues raised by our need as a nation to make adequate provision for a continuous timber supply.

The report does not stop with its statement of what ought to be done. On the contrary its purpose is to present, backed up by a body of facts, constructive recommendations as to how the situation may be met. These in brief are two: First, that there should be established an endowed Forest Research Institution that should devote its energies chiefly to long term, fundamental investigations that experience has shown can best be conducted by an organization of this character. Such an institution would resemble in some ways the Carnegie Institute, in others the Boyce-Thompson Institute. To do the work that needs to be undertaken would require large outlay. The judgment of the committee is that "such a program could not adequately be undertaken with an annual income of much or any less than $1,000,000." This is a big figure, but it is not beyond reason to feel that a group of donors might be found to unite in establishing a trust that would make this vision a reality.

An Organic Act Needed

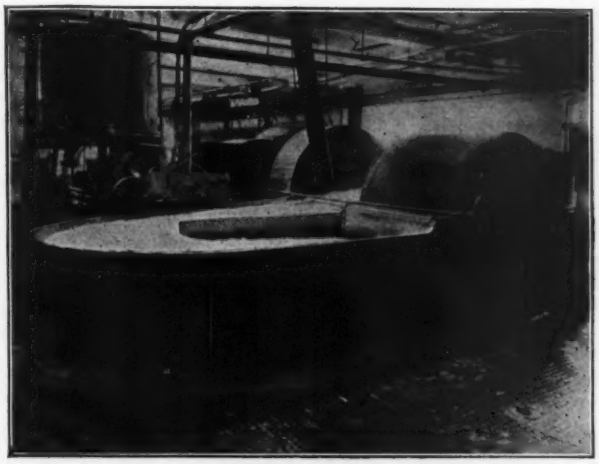
The second recommendation is for an Organic Act by Congress authorizing the appropriation for forest research of specific amounts, to be expended under the direction of the U. S. Department of Agriculture. An itemized estimate is submitted with a total recommended annual appropriation of $3,150,000, during an initial period of a decade.

The Committee further recommends increased allotments for forest research work by the individual states and especially by industrial agencies, on the ground that research is demanded on problems that involve "one-fourth of our total land area, the permanence of our fourth group of industries, the supply and effective utilization of one of our most important commodities, and of a number of lesser commodities."

* From New York Forestry, 1927 Yearbook of the New York State Forestry Association.

HISTORY!

"Simple facts not foolish statements."



Here is an old beater rebuilt into the Dilts approved NEW TYPE. We used customer's old roll, stands, tub ends, bedplate, bedplate box, baseplate, etc. That the results were satisfactory is evidenced by orders for *six* more rebuilt beaters and *three* new beaters.

Read the history of another mill with four Dilts NEW TYPE Beating Engines and five old beaters re-built to the Dilts NEW TYPE for rope stock:

"These 62" x 50" beaters are operating very satisfactorily on rope stock. The capacity is 1500# air dry stock and the circulation is very good. The power consumed is 56 HP with the roll hard down. It gives uniform stock and no trouble is encountered in color mixing as this is determined by circulation.

"When charging no trouble is encountered in plugging and the loading time is considerably less than the Holland beaters as these new beaters take the stock much faster.

"We are certainly pleased with the whole installation and believe we have the best rope stock equipment that it is possible to get."

More and more, mills are coming to the Dilts common-sense NEW TYPE design for their beating engines. You should investigate this because

"Your paper is made in your beaters."

Dilts

MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

Were all these recommendations to be put into effect immediately the amounts available for forest research for a decade would be from $9,000,000 to $12,000,000 annually, as compared with the $2,600,000 now available.

That this general program, as far as it affects the National Government, is not considered an unreasonable demand is evidenced by a bill introduced in Congress at the very end of the last session, at the instance and with the support of the group of representatives of important business organizations who make up the National Forestry Program Committee.

This bill was introduced by Congressman John McSweeney of Ohio as H. R. Bill No. 17,406. 69th Congress, second session, on March 3, 1927. It was referred to the Committee on Agriculture and ordered printed. It may therefore easily be obtained by anyone interested. The McSweeney Bill follows closely the draft of a bill suggested by the Committee, but it is significant to note that the amount is increased in three items, making a total per year of $3,215,000, plus a further annual item for twelve years, of $250,000, for a nation-wide forest survey.

A Campaign of Education

The introduction of a bill in Congress does not, of course, insure its immediate enactment into law. It will probably require a long campaign of education to make the public understand why such large sums are needed for research in forestry. It may take an equal or longer time to find a donor or group of donors to endow a Forest Research Institution. To put any such program into effect will also require very many more trained men than are now available, or indeed are even in sight.

It *is* a big program. But why not? Forestry in the United States is a big issue; one of sufficient importance to justify all that is here asked, and more. Has not the President of the United States, in his Forest Week Program for 1927, just reiterated the fundamental necessity for right care and wise use of American forests, in words much like those of his predecessors? "It is my belief that no other of our internal problems is of greater moment than the rehabilitation of our forests, now so hopefully begun but needing the strong support of our collective will and intelligence."

In making its report and submitting its recommendations the Committee of the Society of American Foresters has rendered a notable service. At last the American people have definitely before them a logical and reasonable program of forest research, backed by a statement of reasons why it should be adopted, so clearly and concisely expressed as to leave no room for misunderstanding.

A Sad Commentary

The piece meal method by which our forest experiment stations and other research activities in forestry have up to now been supported is a sad commentary on the united ability of the American people to realize the importance of a problem that involves nearly as much of our land area as that occupied by productive agriculture. As the Committee points out in the conclusion of its report. "The owners of forest lands, the forest industries, the general public, and even the foresters themselves must be brought to see the great opportunity that is offered by forest research, and to see the futility of depending upon other means."

The situation that confronts us as a people calls unmistakably for the development of forest research as a big national undertaking, on a scale commensurate with the development of agricultural research, and with the movements to acquire public forests, prevent forest fire, and to bring about the practice of forestery on privately owned lands. A new issue is before us, it is one to which all users of the products of the forest should give heed.

Shipping Pulp to Japan

PORTLAND, Ore., June 24, 1927.—The Columbia River Paper Mills at Vancouver, Wash., on June 14 shipped 50 tons of pulp on the ship Baltimore Maru, for use in a paper mill at Kobe, Japan.

Suggested Changes in Census Schedules

On Friday, July 1, M. C. Dobrow, assistant secretary, Writing Paper Manufacturers Association, and Paul S. Hanway, statistician, American Paper and Pulp Association, representing the paper and pulp industry, presented to a committee of the Department of Commerce at Washington, the official recommendations of the Committee on Statistical Procedure for changes in the census schedules.

For several months, a large committee representing practically all grades of paper and wood pulp has carefully studied the present classifications and methods for statistics in the industry, and after due deliberation, a list of recommendations was made in line with what was believed to be the general betterment of the industry at large. Care was exercised that each suggested change should be to the ultimate benefit of the group or grade as a whole and not for the particular use of any single company or establishment.

These meetings were attended by Mortimer B. Lane, editor of the *Survey of Current Business,* and A. H. O. Rolle, in charge of Paper and Wood Pulp Statistics in the Bureau of the Census. Practically every large and small association in the paper industry was represented or consulted. The cooperation by the various associations and mills with the American Paper and Pulp Association was enthusiastic, beneficial, and most gratifying.

The following general changes were requested of the Department of Commerce in its next census schedules:

1. A separate census for paper.
2. A separate census for wood pulp and pulp wood.
3. A separate census for converted paper products.
4. Definite changes in the classifications of the present schedules to give more complete and useful data for various grades.
5. An abbreviated yearly census of production, etc., for paper and converted paper in line with the present annual wood pulp and pulp wood census.

Practically all suggested changes were accepted except the annual census for paper and converted paper products which was held in abeyance. The importance of these changes cannot be too greatly emphasized. Stability in the paper and wood pulp industry cannot be until more complete, accurate and timely statistics are secured.

Because many mills hold aloof and refuse to cooperate in the collection of statistics for the entire industry, there has been no recourse except through a biennial census to obtain actual production and consumption figures.

An industry operating in such a disintegrated manner cannot expect either stability or adequate earnings. The annual census would help to better this condition but even so,—there is the lapse of more than twelve months before the data is compiled and distributed.

The Committee on Statistical Procedure for the paper industry has labored hard and faithfully to help better conditions for the mills collectively and individually. The further cooperation of the mills not now reporting is earnestly requested.

The American Paper and Pulp Association has offered to compile and distribute the data, and to make a free exchange with all mills reporting monthly data on production and shipments.

It is not believed that any mill would suffer in any manner by reporting but it is known that many such mills are now handicapped because of the lack of proper information.

The trend of the times lies in greater cooperation. Each and every paper and pulp mill is requested to cooperate in this sincere effort to benefit the industry as a whole.

R. N. Miller Goes to Bellingham

Roland N. Miller, formerly with the Forest Products Laboratory, Madison, and for the past year in Sao Paulo, Brazil, has been appointed general manager of San Juan Pulp Manufacturing Company with sulphite mills at Bellingham and Anacortes, Wash.

WHY GRILEY-UNKLE EXTRACTORS ARE INSTALLED

BOXBOARD BUILDING WRAPPING ROOFING

JOHN G. FLEMING & SONS
OAK CLIFF PAPER MILLS
DALLAS

June 24, 1927

The Griley-Unkle Engineering Co.,
Fort Wayne, Ind.

Attention of Mr. H. J. Andrews.

Gentlemen:

We have your letter of June 13th asking that we furnish you our reasons for putting your continuous beating system in our plant.

Our primary object in installing the continuous beater was to increase our output and cut production costs, and we are glad to inform you that we have attained both objectives in a very satisfactory manner.

We believe that your system of pulping stock is to be prefered for manufacture of products such as ours because of the fact that hydration of the stock is minimized, drying is more easily accomplished, and it imparts a stiffer body to our board.

The return on our investment in your beater is very gratifying as we have reduced our beater room crew by five men and retired three Holland Type Beaters from service which is an appreciable saving in power cost.

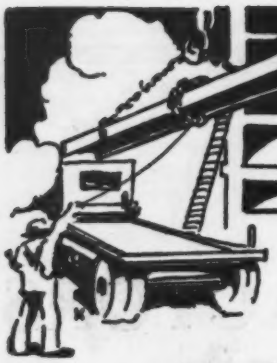
Assuring you that we will be very glad to recommend your system to anyone interested in beater equipment, we are

Yours very truly,
JOHN G. FLEMING & SONS.

JGF/WJB

THE GRILEY-UNKLE ENGINEERING COMPANY
FORT WAYNE INDIANA

BEATING SYSTEMS



CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Cosmopolis, Wash.—The Pacific States Pulp and Paper Company, Becker Building, Aberdeen, Wash., is reported to be considering the erection of a new plant on the Chehalis River, near Cosmopolis, Wash., where tract of land is being selected. The initial mill will consist of sulphate pulp division, to be equipped for a capacity of 100 tons per day, and papermaking department, with machinery for an output of about 50 tons daily. Other buildings, including office, also will be built. The entire project is expected to cost in excess of $1,200,000, including equipment.

Stockton, Cal.—The National Paper Products Company, Church street, has plans under way for the construction of a new addition to its plant, to be one-story, reinforced-concrete, estimated to cost approximately $160,000, with equipment. It is expected to begin work in about 60 days, and it is understood that bids will be asked on general contract within a short time. V. D. Simons, 435 North Michigan avenue, Chicago, Ill., is consulting engineer.

Tacoma, Wash.—The Northwest Pulp and Paper Company, Tacoma, has plans nearing completion for the construction of a new pulp and paper mill on tract of property just outside the city limits, lately acquired, and will begin work at an early date. The plant will consist of a number of buildings, and will be equipped for an initial output of about 50 tons of finished paper per day. It is estimated to cost approximately $600,000, with machinery. John Buffelen is president of the company and will supervise construction.

Baltimore, Md.—The Chesapeake Paper Board Company, Key highway and the Baltimore & Ohio Railroad, will soon begin the erection of a proposed new addition to its plant, to be one-story, reported to cost close to $75,000, including equipment. William C. Kerner is secretary.

Cleveland, Ohio—The Ohio Boxboard Company, 1390 East 13th street, has awarded a general building contract to the L. Dautel & Son Company, 5710 Hough avenue, for its proposed new addition, to provide for considerable increase in capacity. It will be one-story, 60x120 feet, brick and steel, and is estimated to cost approximately $75,000. Work will be placed under way at once. C. W. Hackett is secretary of the company.

Hoqiam, Wash.—The Grays Harbor Pulp Company, Hoquiam, has completed plans and will proceed at once with the erection of its proposed new local pulp and paper mill, for which a general building contract has been awarded to Chris Kuppler & Sons, Seattle, Wash., with branch office at Port Angeles, Wash. Pile driving work will be carried out by Owen Brothers, Port Angeles. The plant will comprise a number of buildings, with power station, machine shop and auxiliary structures and is estimated to cost in excess of $2,000,000, with machinery. V. D. Simons, 435 North Michigan avenue, Chicago, Ill., is consulting engineer.

Antioch, Cal.—The Paraffine Companies, Antioch, manufacturers of paraffine papers and kindred products, have begun work on a new one-story addition to their local plant, to be used largely for storage and distributing service, estimated to cost about $100,000. A general contract has been let to MacDonald & Kahn, Financial Center Building, San Francisco, Cal.; contract for pile driving has been awarded to M. B. McGowan, 666 Mission Street, San Francisco. Leland Rosener, 233 Sansome Street, San Francisco, is engineer.

Cleveland, Ohio—The Iten Fiber Company, 2359 East 67th street, has completed plans for a new addition to its plant, to be located at 4321 Bower Avenue. The new factory will be one-story, 50 x 130 ft., and is estimated to cost close to $45,000, with equipment. It is proposed to begin work at an early date.

De Pere, Wis.—The DePere Paper Manufacturing Company has decided to postpone the erection of its proposed new addition, to be one-story, 70 x 150 feet, designed primarily as a beater room, and the project will be held in temporary abeyance. It is understood that it may proceed as originally planned before the close of the year. Herman Miller is general manager.

Everett, Wash.—C. E. Berry, Seattle, Wash., engineer, is said to have tentative plans under way for the construction of a new pulp and paper mill at Granite Falls, near Everett, for a company whose name is temporarily withheld. It is understood that an option has been taken on 40 acres of land as a plant site. The project will comprise pulp and paper units, and is reported to cost in excess of $3,000,000, with machinery.

Ketchikan, Alaska—Officials of the Zellerbach Paper Company, Sacramento, Cal., are reported to have plans maturing for their proposed new pulp and paper mill at Ketchikan, where property recently was secured, including water rights for a hydroelectric generating plant for service at the mills. The entire project is estimated to cost close to $10,000,000.

Newport, N. H.—Henry W. Brown, president of the Gordon Woolen Mills, Newport, is said to be at the head of a project to convert the former mills of the Peerless Manufacturing Company, previously devoted to textile production, for the manufacture of paper products. The proposed new industry will be given over to the manufacture of special process papers, using kelp as a source of raw material, and experiments are now under way to perfect the details.

De Pere, Wis.—The Nicolet Paper Company has work in progress on remodeling and improvements in its mill, and is scheduling the program for completion about the middle of August. The betterments are being carried out by day labor under the direction of L. A. DeGuere, Wisconsin Rapids, Wis., engineer, and will provide for increased working efficiency at the plant. Henry C. Hanke is vice-president.

Fort William, Ont.—The Great Lakes Paper Company, Fort William, is perfecting arrangements for the early erection of the initial unit of its proposed new local mills, for which plans were recently completed. It will be equipped for an output of about 100 tons per day, to be increased to 250 tons daily at a later day, provision being made in the structure for the installation of additional equipment. Other proposed units at the plant will bring the output to a gross of 550 tons per day, with ultimate completion. It is purposed to have the first portion of

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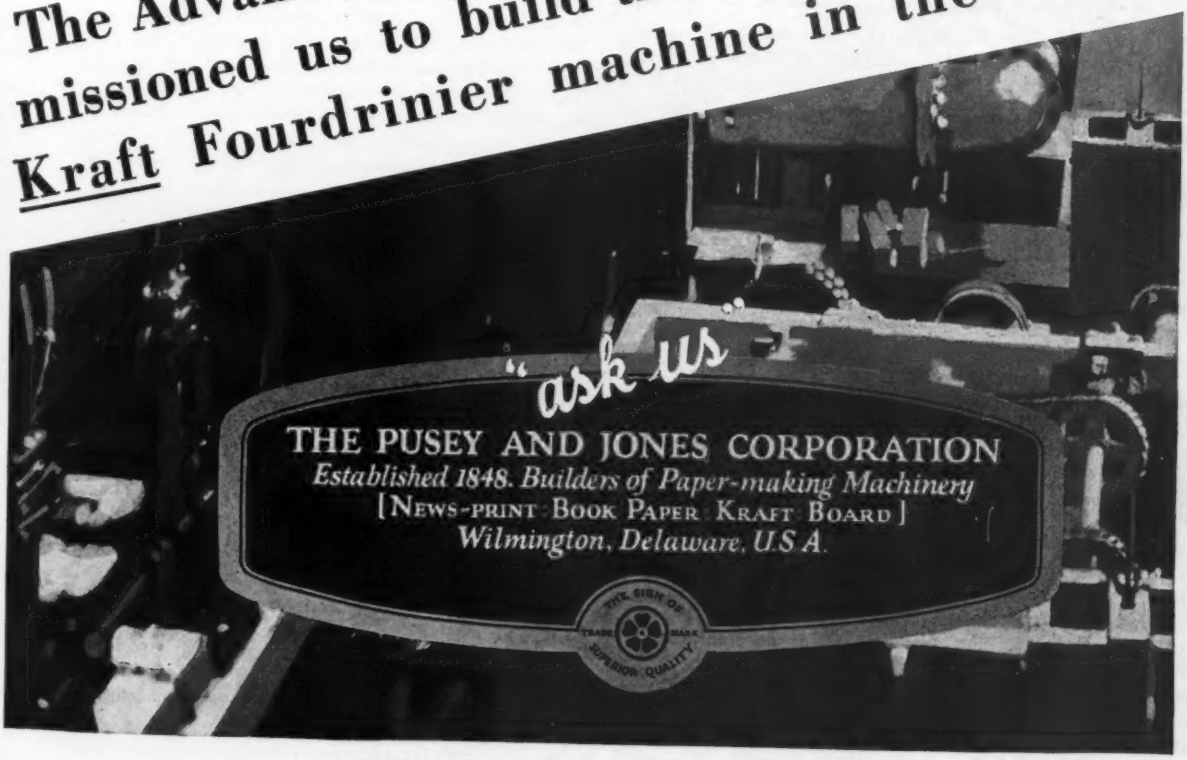


the plant ready for service in about 18 months. The project will cost in excess of $5,000,000, with equipment.

East Walpole, Mass.—Bird & Sons, Inc., East Walpole, manufacturer of paper roofing, etc., has plans for a new one-story addition to the power department at the mill, to be equipped as a turbine room. The estimated cost has not been announced.

New Companies, Etc.

North Bergen, N. J.—The International Folding Box Company has been incorporated with a capital of $500,000 preferred stock, and 10,000 shares of common stock, no par value, to manufacture paper boxes, containers, cartons, etc. A local plant will be operated. The incorporators are William B. Walsh, Sydney H. Bergmann and Frederick Gilman, Thirty-eighth street and the Turnpike, North Bergen. The last noted is representative.

Wilmington, Del.—The Bates International Bag Company, care of the Corporation Trust Company of America, du Pont Building, Wilmington, has been incorporated under state laws with capital of $500,000, to manufacture patented paper bags.

New York, N. Y.—The Buildings Waste Paper Company has been incorporated with a capital of 100 shares of stock, no par value, by J. S. English, 43 Exchange Place, New York, and associates, to deal in waste paper. The company proposes to operate a baling works.

Brooklyn, N. Y.—The East New York Paper Box Company has filed notice of company dissolution under state laws .

Chicago, Ill.—The American Decalcomania Company, 2931 Flournoy street, has filed notice of increase in capital from $100,000 to $140,000, for general expansion.

Newburgh, N. Y.—The Spencer-Wynne Paper Products, Inc., has been incorporated with a capital of $750,000, to manufacture paper goods. J. B. Corwin, Newburgh, is one of the principal incorporators and representative.

Development Association Formed

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., July 11, 1927.—The organization launched recently at a meeting in Watertown through the efforts of Floyd J. Carlisle, president of the St. Regis Paper Company, George W. Sisson, Jr., of the Racquette River Paper Company, Potsdam, and other pulp and paper manufacturers and business men interested in the development of Northern New York resources was chartered during the past week with the Secretary of State as the Northern New York Development Association, Inc., with headquarters at Watertown. The incorporation papers were filed under the membership corporations law.

The incorporators include a number of men prominently associated with the pulp and paper industry of Northern New York. Among the incorporators are Thomas F. Remington, Watertown, George W. Sisson, Jr., of Potsdam, Harry S. Lewis, of Beaver Falls, George H. Campbell, of Oswego, Ernest S. Mason, of Malone, Julius Frank, Ogdensburg, Robert J. Buck, Watertown, and Harry W. Barnard, of Rome.

At the first meeting in Watertown of those interested in the project Mr. Carlisle, who was the principal speaker, suggested as a name for the organization, The Association for the Utilization of the Resources of Northern New York. At a more recent meeting in Ogdensburg this was changed to the Northern New York Development Association, under which it is chartered.

One of the principal aims of the organization is a big reforestation program patterned along the lines of that of the St. Regis Paper Company which now maintains its own tree nurseries capable of furnishing hundreds of thousands of young trees annually. In carrying out the reforestation program special attention will be given to the development of timber suitable for pulpwood.

The St. Regis Paper Company, through F. J. Carlisle, president, has been pledged to contribute $5,000 yearly towards a fund to promote the objects of the association.

Activities of the Brotherhood

ALBANY, N. Y., July 11, 1927.—Frank B. Barry, vice president of the International Brotherhood of Papermakers, who has been in charge of organization work in Holyoke, Mass., and Arthur Huggins, in charge of the Canadian headquarters at Three Rivers, Province of Quebec, were summoned to headquarters in this city last week by William R. Smith, Brotherhood president, for a conference having to do with union watermarked paper which is now being produced by several firms under an arrangement with the union. It is understood that a situation has arisen relative to this type of paper on which Mr. Smith desires the views of Messrs. Barry and Huggins before making a decision. Just what the situation is was not made known.

President Smith arrived back in headquarters here last week after a trip through the Province of Quebec during which he met with a number of paper manufacturers in Three Rivers and vicinity. He expressed pleasure over the cordial relationship existing between the local unions in Quebec and the paper mill owners.

Elaborate arrangements are being made for a conference of the Northern New York unions to be held in Norfolk September 12. The program for the event at which a large attendance is expected will include a banquet and addresses by International officers and others prominent in the paper industry.

No word has reached Brotherhood headquarters in this city as yet indicating what action the St. Regis Paper Company will take on the recently presented requests for adjustments in wages and working conditions.

St. George Mill at Norwalk May Reopen

NORWALK, Conn., July 11, 1927.—Negotations are under way for the re-opening of the plant of the St. George Paper Company on Smith street. It is understood that the new company will lease the mill for a term of years with the privilege of purchasing the same, providing the proper terms can be arranged with the International Paper Company, owners of the property.

The new concern is engaged in the manufacture of wrapping paper. The big Fourdrinier machine, with its accessory water supply from three artesian wells and a plentiful supply of city water, is ideal for the purpose of manufacture of this product.

Several members of the concern have visited the plant during the past few days and this morning the final inspection was made by five paper experts.

The water frontage of the mill and the accessibility for coal and water shipments avoiding freight hauls by train was a big factor in helping the experts to settle upon the St. George plant as ideal.

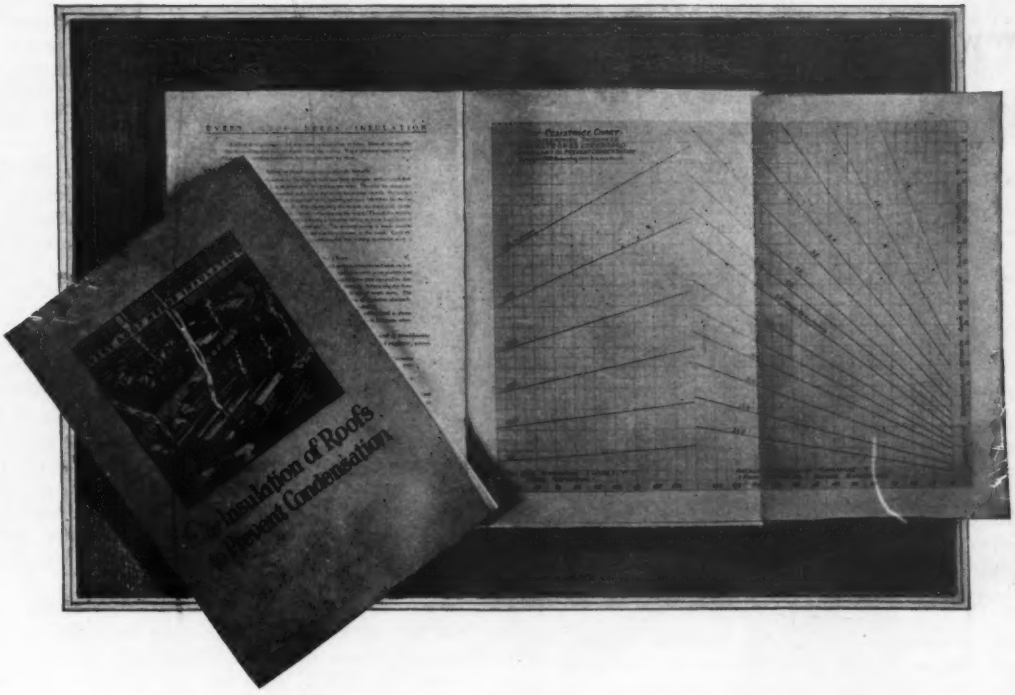
On the water front the unloading cranes were of especial interest, while the power plant underwent minute insepction. It is understood that the St. George plant could be operated at a big saving over expenses of the present mill.

The one at present is located inland and freight shipments are all by rail.

This news will be encouraging to the great many laid off when the mill closed, because, according to reports, the negotiating company will take back former employes if it completes the negotiations now under way.

Sponsor Need for Careful Sealing

The American Railway Association and the American Railway Express have satisfied the need for the education of shippers and packers by an attractive folder exhibiting the best methods of sealing with adhesive. In this way it is expected that the claims for damages to cases due to inadequate closure will be reduced. The Philadelphia Quartz Company, together with other manufacturers of silicates of soda and adhesives, has co-operated in the preparation of the folder, "Fibre Cases, Good Sealing for Safe Delivery."



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Every phase of insulation for mill roofs is approached from a scientific, yet practical, standpoint in this Armstrong publication. For example, included in its contents is an easy-to-use chart for determining the exact thickness of insulation necessary to prevent condensation under any given conditions. This chart, as well as other data presented, is based on the long experience of the Armstrong engineers in designing insulation for all kinds of conditions.

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JULY

New York Trade Jottings

H. P. Gould, president and treasurer of the Gould Paper Company, paid a flying visit to New York last week.

* * *

The Interstate Commerce Commission, on its own motion, has instituted proceedings as to handling of freight at constructive and off-track stations on Manhattan Island, New York.

* * *

George Hannon Rady, vice-president and secretary of the E. J. Keller Company, Inc., New York, and president of the National Association of Waste Material Dealers, Inc., is at present enjoying a hard earned vacation.

* * *

The United Paperboard Company, Inc., New York, has filed a complaint against the Central Vermont attacking the rates on imported wood pulp from New York to Wabash, Ind. It asks for rates for the future and reparation.

* * *

The United Paperboard Company, Inc., New York, has filed a complaint against the Baltimore & Ohio Railroad attacking the rates on imported wood pulp from Baltimore, Md., to Wabash, Ind. It asks rates for the future and reparation.

* * *

Charles C. Concannon, chief of the Division of Chemistry, United States Bureau of Foreign and Domestic Commerce, who possesses many friends in the paper industry, sailed July 9 aboard the Cunard liner *Aquitania* for a month's stay in Europe.

* * *

The offices of the American Paper and Pulp Association, at 18 East 41st street, New York, are being renovated and improved. An innovation which appeals to visitors is the display of literature pertaining to the paper industry, including the leading trade periodicals and bulletins issued by the association, arranged on a table at the entrance of the offices.

* * *

When the Eleventh Exposition of Chemical Industries opens in the Grand Central Palace for the week from September 26 to October 1, an educational opportunity will be offered through the students' course on the fundamentals of chemical engineering and industrial chemical practice. Practically all the space on three floors of the Grand Central Palace has been sold.

* * *

In connection with the hearing on the subject of establishing paper rates from Trunk Line origins to Western destinations on the basis of 80 per cent of the 6th class rate, on which public hearing was held in New York on May 25, the Trunk Line Association has advised the National Association of Waste Material Dealers, Inc., that, after due consideration, the carriers had concluded to make no changes in the existing rates.

* * *

Austin Cary, D.Sc., was a visitor at the offices of the American Paper and Pulp Association, New York, on July 5. Dr. Cary, who has for a number of years been logging engineer for the United States Forest Service, spent the greater part of the winter in the South, and is more enthusiastic than ever in regard to the forest possibilities of that region. His work there has brought him into close contact with the pulp and paper industry and his thoroughly practical point of view gives added weight to his recommendations. At the present time Dr. Cary is returning to Maine for his annual vacation and for field work supplementing his former studies of spruce in Maine. His spruce volume tables, first published in 1909, are still standard, the most recent check having been made by the Northeastern Forest Experiment Station at Amherst, Mass. The results of recent experiments in the girdling of inferior hardwoods in the mixed hardwood and softwood stands of the Northeast are another demonstration of the value of Dr. Cary's work. He has long advocated this measure as a feasible step in forest management and has now seen his ideas successfully carried out on a commercial scale by one of the larger pulp and paper manufacturers in the Adirondacks.

Schoenbucher Returns From Pacific Coast

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., July 11, 1927.—N. A. Schoenbucher has returned from his trip to the Pacific Coast where he called on many of the dealers and came in contact with a great many others through association meetings. He was pleased to report a very delightful trip and a pleasant time.

The adoption of the 1000 sheet plan for common weight and count has been successfully executed by the Pacific Coast houses and will become effective August first. This change is a very desirable one for the buyer as well as the dealer in that it simplifies estimating to a decimal computation. It also helps the printer to place an estimate before his prospect in a form that will be easily recognized.

Pacific Coast dealers in wrapping papers are giving the Net Profit Control scheme a careful consideration and its adoption by approximately 90 per cent of the dealers would indicate the feasibility of the plant.

Marvin H. Higgins, one of the pioneers of the paper trade on the Pacific Coast, and chairman of the board of the Zellerbach Corporation, was re-elected president of the Pacific Coast Paper Association. Mr. Higgins has been president of the association for the past number of years and he has not only made it one of the strongest associations in the paper industries, but one of the best organized among all trade associations and especially on the Pacific Coast.

His re-election was by acclamation and was unanimous although Mr. Higgins has requested the adoption of his resignation, and his desire to see some one else at the head of the association. The President stated that his manifold duties as chairman of the Zellerbach Corporation prevented him from entering actively in the executive duties of the association. His re-election is certainly one of the finest exhibitions of his leadership and a remarkable tribute to the esteem Mr. Higgins holds among his associates.

Ben Franklin Co. in Larger Quarters

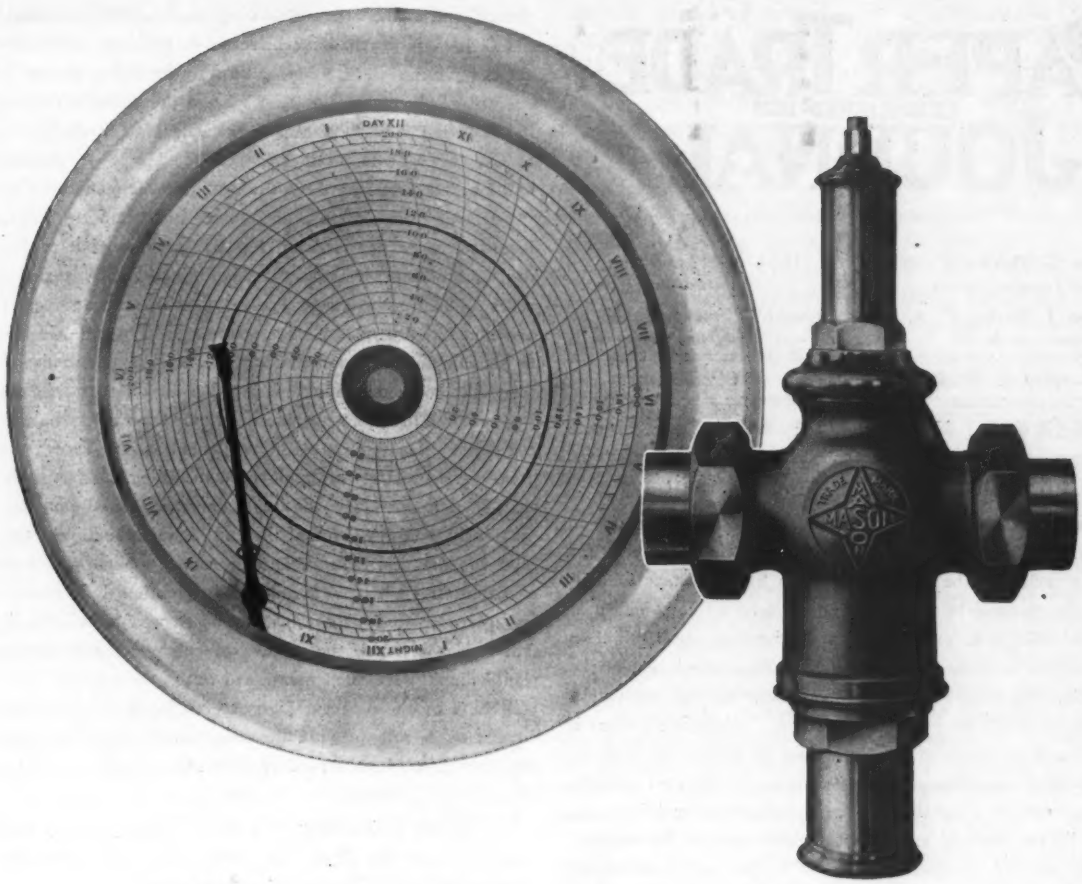
CHICAGO, Ill., July 11, 1927.—The Ben Franklin Paper Company of 116 South Michigan avenue, Chicago, has moved from the ninth to the seventh floor and taken double the space that they formerly occupied. Their quarters in the front of the building, overlooking Grant Park and the Lake and the arrangement of their offices give them one of the best sets of offices in the trade. Dana T. McIver, the president of the company, says that if business keeps increasing it will soon again be necessary to take on additional space.

Chicago Paper Trade Conditions

CHICAGO, Ill., July 11, 1927.—The past week may be generally characterized as a quiet one due to the vacation occasioned by the national holiday. The associations reported no meetings and the dealers themselves spent the time in a check up and resumption of duty after the Fourth.

Many of the offices made a three day holiday possible for their employees by clearing up the orders on hand Friday night and allowing them Saturday morning. This gave the dealer and employee a chance to hie themselves to the many lakes and golf courses in and about Chicago Lake.

Coarse papers are steady and an increase was noticed in fine. All grades may be said to be in a better condition than existed through June.



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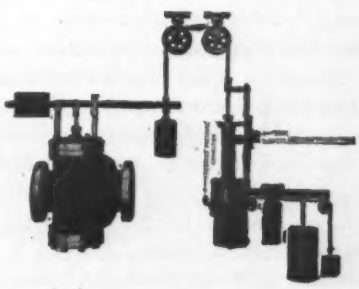

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Editor Cost Section

Reginald Trautschold, M. E.
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GROUP INSURANCE IN THE PAPER INDUSTRY

Group insurance had its real beginning in the United States in 1912 when Montgomery Ward & Co. insured 3000 employees for six million dollars. The growth of group life insurance is indicated by the increase in amount from thirteen million dollars at the close of 1912 to an estimated total of five and one-half billion dollars for four million, seven hundred thousand employees at the end of 1926. The idea of group life insurance was an innovation in the field of industrial relations as well as in insurance, since it provides for a coverage of not less than 50 employees, with or without medical examination, the premiums to be paid entirely by the employer, or if by the employees and employer jointly not less than 75 per cent of any selected class were to be insured. The group selected for insurance might be the entire personnel, those employees who have served a specified period of employment, all members of a mutual benefit association or any other arbitrarily chosen class which precludes individual selection by the employer.

In a survey which covers 78 paper and pulp companies employing 35,099 wage earners of whom 29,732 or approximately 85 per cent were protected by group insurance, the plans have been analyzed and the experience has been collected by the National Industrial Conference Board of 247 Park avenue, New York City.

The amount of life insurance and number of employees covered were not indicated in every report but comparable data were provided for 27,860 persons for whom $43,207,365 group life insurance was carried, or an average of $1551 for each employee. The definition of group insurance embodied in state legislation provides generally for two basic types of policy, the non-contributory plan in which the employer pays the entire cost of premiums or the contributory type where employer and employee share in defraying premium costs. In some cases there may be additional insurance which may be paid for entirely by the employee. In no instance is the premium cost of a policy to a wage earner to exceed 60 cents per month per $1,000 of insurance. Of the $43,207,365 group life insurance, $41,676,265 was segregated accordingly: $29,925,200 or 72 per cent was on a contributory basis; $11,380,065 or 27 per cent was on a non-contributory basis; $371,000 or 1 per cent was additional insurance paid for by employees.

The development of group insurance was given an impetus during and immediately following the World War when it was installed mainly as an incentive to attract and hold labor. The earliest policies were paid for entirely by the employer but more recently the tendency has been toward the contributory type since it has been claimed that this form is less paternalistic, less costly to the employer and indicates that the employees appreciate the value of insurance by their willingness to help share in its cost.

The purposes which prompted the installation of group life insurance were not reported by all companies, but of those who gave one or more reasons for adopting this activity the desire to reduce labor turnover was mentioned 14 times; the desire to provide for dependents of employees was mentioned 15 times; to provide for the welfare of employees was mentioned 7 times; the desire to secure closer cooperation and loyalty was mentioned 5 times; the desire to provide insurance for those who did not or could not otherwise secure it was mentioned 3 times; the desire to reduce the anxiety of employees concerning their dependents was mentioned 3 times; the desire to increase the amount of benefit previously paid by Mutual Benefit Associations was mentioned 2 times; the desire to reduce the moral obligation of company contributions in case of death was mentioned 2 times; that it was given instead of a Christmas gift was mentioned 2 times; that it was given at the request of employees and because other plants did it were each mentioned once.

Because of the incipient high rate of labor turnover, employers do not as a rule provide insurance until a specified period of employment has been served or until other qualifications have been met.

The amount of insurance to which an employee may be entitled varies in different plans. In some cases it is based upon the period of service. For example, $500 may be provided for upon eligibility with increments of $100 for each year of service up to 5 or 10 years. In other cases, the amount of insurance is fixed and remains at the same limit regardless of the period of employment. In still others, it is based upon the salary of the employee, the sex, or the number of dependents.

The hazards covered may be death alone, or as is usual, together with total disability; sickness and non-occupation accident alone or together with death and total disability. Two companies covered sickness and non-occupational accident, 17 covered in addition death and total disability and 56 covered death and total disability alone. In the group which was covered by health and non-occupational accident insurance were 12,449 employees. The average weekly amount of sickness and accident benefits to which employees were entitled as reported for 4,967 wage earners was $10.44.

In some companies group insurance is related to other activities of the organization, as for example a pension plan or mutual benefit association. Of the companies which reported,—

47 companies had no mutual benefit association.

7 companies had mutual benefit associations which however were not related to the group insurance plan.

8 companies insured only members of their mutual benefit association.

4 companies had the plan administered by their mutual benefit association.

That group insurance displaced the need of a benefit society

was the comment received in several instances of those companies who did not have such an organization. Generally, the establishment of a group insurance program did not lead to the dissolution of an existing benefit society since these associations still carried on social or athletic functions or served other uses.

In connection with the purposes which prompted the installation of group insurance it is well to consider the experience of the industry with this project in the light of the advantages and disadvantages which have been noted. In the reduction of labor turnover, it was felt by the companies that group insurance may be a force tending to keep an employee provided that no greater wage inducements or other equally attractive incentives were offered elsewhere. It was felt to be unlikely to become a panacea for the reduction of all labor ills. Properly planned and administered, it may therefore be a factor tending to stabilize labor.

As a rule employees appreciate the value and benefits of insurance, especially the older and married wage earners. Occasionally it was reported that single men and women without dependents did not appreciate life insurance as fully as others since they claimed "they had to die to win it." When sickness and accident coverage is offered, this objection is overcome and in many cases younger employees recognize the value of such insurance.

In some cases, group insurance has a good effect on the employees and the community in the cessation of solicitations for assistance to dependents of employees or for disabled wage earners. To the employee it offers assurance that his dependents will have available at his decease a definite sum to enable them to readjust themselves or where sickness and accident benefits are awarded, it provides a definite sum during his period of disability.

To the employer it offers indirect values. Since he may not be designated as the beneficiary no direct financial benefits accrue. The value of group insurance to the employer rests upon the assumption that with the presentation of free or contributory insurance protection, the employee will thereby be drawn closer to the organization, will be more loyal and cooperative and less mobile. To accomplish these aims has entailed an expense which must be balanced against the advantages and disadvantages experienced.

Of 50 companies who expressed comments under one or more of the following heads:

15 found a definitely reduced labor turnover.
5 found no effect on labor turnover.
3 found it did not hold young or unmarried employees.
20 found it of value to employees and their dependents.
16 found employees appreciated fully insurance protection.
5 found employees did not appreciate insurance protection.
3 found it stopped "hat passing."
2 found it had a good effect on the community.
14 found it strengthened the morale of the employees.
1 found it relieved the anxiety of employees over their dependents.
5 found no benefits although the companies felt eased in doing their share to care for employees.

To a considerable degree, the success or failure of a group insurance program depends upon the understanding of its value by the employee. Where in a number of cases group insurance plans failed, it was very probable that the employees were not sufficiently acquainted with the plan to form constructive judgment.

In the evaluation of the experience of the paper and pulp companies it is well to remember that the considerations of the group insurance problem which apply to other occupations hold equally well in this industry. The experience of the paper and pulp plants included in this survey does not differ to any considerable extent from that of other plants covered in a more comprehensive investigation undertaken by the Conference Board.

Nominations for Brotherhood Election

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., July 5, 1927.—Nominations for offices in the International Brotherhood of Papermakers may be filed until August 8 inclusive, it was learned at headquarters of the organization in this city. Some nominations have already been filed and local unions are being urged to nominate as early as possible. Officers to be elected this fall for a two year term include a president, six vice presidents, a secretary, a treasurer, an auditor, two delegates to the American Federation of Labor Convention, and one delegate to the Dominion Trades Congress.

No official announcement has come as yet from any of the present officers that they will seek re-election but it is understood that each of the officials will seek another term. The present officers of the Brotherhood are William R. Smith, president; Frank P. Barry, first vice president; Arthur Huggins, of Holyoke, Mass., second vice president; George J. Schneider, of Appleton, Wis., third vice president; Arthur D'Aoust, of Ottawa, Can., fourtn vice president; Simon Weir, of International Falls, Minn., first vice president; A. F. McLeod, Espanola, Ont., Canada, sixth vice president; Archie Hook, of Chicago, treasurer; Matthew J. Burns, secretary; David Larner, of Tonawanda, auditor.

In the coming elections candidates for a vice presidency must specifically state the office which they seek instead of the former system under which the size of the vote cast was the determining factor, the one receiving the largest vote being first vice president, etc. Two of the vice presidents must be from Canada, according to the Brotherhood constitution, and officials of the organization are pointing out to local unions that the fourth and sixth vice presidents will be so designated.

It is generally expected that there will be opposition to the present officers although nothing is definitely known at this time of the anti-administration faction's plans.

Pacific Coast Sales Book Co. Expands

[FROM OUR REGULAR CORRESPONDENT]

LOS ANGELES, Cal., July 1, 1927.—The Pacific Coast Sales Book Company, which for a number of years has been located at 900 North Broadway, Los Angeles, just has moved into its new $500,000 plant at Slauson and Avalon avenues. In its new plant the company has one of the largest and most perfectly equipped plants in the Southwest for the production of printed sales forms and records. The presses have a daily capacity of 3,000,000 slips and last year turned out as one of its items of production 250,000,000 street car transfers for use in Southern California.

The new establishment has a frontage of 150 feet on Slauson avenue and extends 393 feet to a spur track in the rear. The building is of brick and steel and contains more than 50,000 square feet of floor space.

The officers and employees of the company number 150. R. P. Templeton is executive head and general manager of the business; B. W. Yale, general sales manager; Phil Baum, district sales manager; F. W. Hausen, credit manager; W. H. Mordy, office manager; and R. W. Haeger, plant manager. Considering the extent of this company's business it is one of the largest consumers of paper stock in Southern California.

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Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

Making Hand-Made Paper in Japan*

By F. W. Warren

Hand-made paper, as produced in Japan, draws its raw material from the bark of the small tree called "gumpi" or *gumi*. This tree, found in mountainous places, which is said to attain a height of about six to eight feet is cut down, the limbs are trimmed off and the trunk, which measures from one and one-half to three inches at the butt is cut into lengtns or about three to four feet. The sticks are bound in bundles, loaded on a small mountain packhorse and brought to the market which is usually in a papermaking village. The sticks, with the bark on, are put into large earthen kettles or cauldrons, which have a fireplace under them.

The cauldrons are filled with water, which is heated. The sticks are put into the cauldrons just long enough to soften the bark, so that it may be peeled off easily. The bark is hung up on horizontal wooden poles to dry or season. After seasoning it is packed in bundles and sent to the paper mills, the sticks or trunk of the tree being used for firewood.

Paper mills, even the oldest hand-made kind, are nearly always on the banks of a stream of running water, and this location serves the Japanese hand-made papermaker well and in many ways. The strips of bark are taken from the bales and placed across other poles so arranged that the gumpi bark is suspended in the stream or river until it is thoroughly soaked. The bark is then placed upon a table or on the floor, where women with large knives remove the outer or black portion which contains no fiber. The inner bark, which contains the fiber having been cleaned, is then placed in a cauldron of hot water and cooked until fairly soft.

The next step is hand washing. A large tub, much like a butter tub, is filled with the cooked bark and clean water is used for washing. Usually a woman stirs the mass by hand and changes the water until it comes away clear. The washed fibers are then placed in woven baskets having a fine porosity. As the cooked fibers are not separated from each other, it is easy to wash them by placing the porous basket into the stream of running water.

After this last stream washing, the fibers are placed upon a beating table which is about 6 feet long by 3½ feet wide. There are usually two beatermen, seated one on either side of the table. Each beaterman has a club about two and one half inches square with a round handle of convenient size.

Preparing the Pulp

Naturally it requires a long time to properly beat these fibers by hand but it is done with amazing skill so that the fibers when "made" into pulp are well and finely separated. In special cases, for very fine papers, a stone mortar and stone-ended pestle are used to further refine the pulp before it is poured into the big jars in which it goes to the stock room.

While in the stock room, the pulp is kept in large earthen jars and at this stage the dye or tint is added, to give the desired

Editor's Note: This article describes in detail the ancient art of making hand-made paper in Japan, which is carried on today in essentially the same way as it was five hundred years ago.

* International Paper Monthly, International Paper Co., New York.

EXTERIOR VIEW JAPANESE HAND-MADE PAPER MILL. IN CENTER ARE SEEN THE DRYING BOARDS

IN DOORWAY OF HAND-MADE PAPER MILL IN NAJIO. LEFT TO RIGHT MESSRS. HORIKOSHI, SAMBA, IWANO, AND FUJIMOTO

THE DRYING BOARDS IN A HAND-MADE PAPER MILL IN TAKEBU

OLD HAND-MADE MILL IN TAKEBU. THE DRYING BOARDS ARE SEEN

color. When required, the jars of pulp are taken from the stock room and carried to the vat room. The number of vats vary according to the manufacturers' requirements.

The vat is partially filled with clean water and the right quantity of fibers are added from the jars. The paper-maker, sometimes a man, but often a woman, is seated on a cushion and with a wooden rod stirs the pulp until it is thoroughly mixed with water. The stirring is most carefully done so as to avoid the presence of lumps in the finished sheet of paper.

The "backtender" stationed behind the papermaker selects the wooden form of correct size for the sheet to be made. The size twelve by eighteen inches is often used. The wire with the proper mesh is then nailed to a frame that fits tightly underneath the form similar to to our forms used when making a hand sample of paper for a color test.

Perfecting the Sheet

The set-up form is passed to the papermaker who carefully holds the wire screen and frame together and dips it under the surface of the prepared stuff. Then, with a careful, shaking motion, so as to weave or felt the fibers properly, the form is brought to the surface and placed on the edge of the vat in order to allow the sheet to drain.

After the water has drained off, the backtender lifts off the form and removes the screen which carries the sheet of paper. Then the backtender selects a piece of felt slightly larger than the sheet of paper, moistens it, and spreads it over the sheet on the wire. The wire is then turned upside down and with a few careful rubs across the back side of the wire, the paper is loosened from the wire and remains attached to the felt. The form is then handed to the papermaker and another sheet of paper is made.

As each sheet is removed from the wire to the felt, they are placed in a pile on a plank until there are about four hundred moist sheets of paper that are separated from each other by the woolen felts. Then another piece of plank is laid on top of the pile and the whole stack, both paper and felts, is taken to a press. Sometimes there is no mechanical press, and in that case heavy stones are used to weight down the top plank and thus force the water out.

Drying

After about twelve hours' draining, the stack of moist paper and felts is taken to a room where women lift off, together, a combined piece of felt and sheet of paper at the same time. Then by using the back of a certain convenient type of brush, which is used with great skill, the paper is detached from the felt and stuck against the surface of a drying board. A drying board is a large wooden board made from very light wood of about one inch in thickness and planed or polished until perfectly smooth on the surface. Each board holds about three large sheets of paper.

The moist paper is carried from the felt to the drying board and the brush is used to apply the sheet to the board's surface. The brush then serves to rub away any wrinkles that may have been caused by the felts or during the operation of making the transfer of the sheet.

When enough sheets are applied to the board to practically cover it, it is placed out of doors with the paper facing the sun so as to dry and bleach it. After drying and bleaching, the paper is removed from the board and is then in such shape that it can be counted and stacked up in reams. Some of this paper is trimmed or cut by hand, but most of it remains with the attractive deckle edges apparent all around the ream.

The packing is done first, in paper binding, and then a number of reams are packed in a container of coarse paper covered with woven rice straw in which all Japanese paper goes to market.

Usually a good papermaker can make from three hundred to four hundred sheets daily.

Hand-Made Paper Industry Thrives

The number of vats now in Najio is one hundred and fifty-six, but in Takebu there are certainly many more. The Japanese hand-made paper industry thrives in spite of the fact that right beside the ancient industry there has grown up one of the largest modern paper industries that exists in the world to-day. However, hand-made paper of the best quality can always find a market owing to its very artistic and special nature.

Types of Salt for Water Softeners

It is well known that the International Salt Company is a producer of every known kind of salt (sodium chloride). It may not be a matter of common knowledge, though, that this company, through its research department, has secured some new facts regarding the economical operation of water softening equipment.

It is true that the salt brine necessary for the regeneration of the Zeolite in water softening systems can be produced with any grade of common salt. And users of water softeners have in the past proceeded on this principle. The size or capacity of water softeners, however, has an influence on what grade of salt will be most economical.

These facts should prove interesting to users of water softeners, such as textile mills, laundries, hotels and hospitals. As Zeolite Water Softeners have proved their ability to reduce the cost of boiler plant maintenance this phase of softener operation will contribute to the satisfaction of plant owners.

The facts regarding the proper grade of salt for regenerating water softeners have now been determined by the International Salt Company. This information qualifies it to recommend the proper grade of salt for every type of softener.

Reducing Boiler Plant Costs in Paper Mills

Louis C. Whiton, Jr.[1]

The reduction in either the initial cost of the steam plant or its operating cost in connection with a paper mill, has a greater influence upon the cost of fabrication than is the case with most other products manufactured.

Fixed charges depend upon initial investment, and any means which can be offered for the reduction of these fixed charges has a direct influence on the cost of manufacture. This is especially true when it is considered that money invested in plant apparatus, is expected to pay at least 20 per cent return per year. Thus, a saving in initial investment of $10,000 should be considered as net saving per year of $2,000, rather than $600 at 6 per cent.

If, in addition to this, means can be offered for the reduction of the cost of producing steam, the total saving per year is further increased. Any apparatus which fulfils both of the above functions is a matter of interest to the executives and to the engineers.

Furnace Draft and Costs

This article concerns the production of draft over the boilers and its effect upon initial investment and operating costs when comparing the two general methods employed at the present time—natural draft and mechanical draft. In addition there will be considered the auxiliary effect that the draft producer has upon the size of the boiler eventually purchased, and its effect upon boiler efficiency.

A natural draft brick chimney represents a large proportion of the total boiler house investment, and in general may be considered a comparatively non-productive apparatus. The cost of operation is not, as is sometimes casually assumed, nil. The average industrial plant requires the heat from 15 to 25 per cent of the total coal fired to operate the natural draft chimney.

In accordance with modern boiler plant practice, boilers are operated at a considerably higher rating than formerly, and consequently, at higher drafts. This necessitates the use of a taller natural draft chimney, and if genuinely high ratings of 300 to 400 per cent of the rated boiler capacity (which are not uncommon at the present time) are to be obtained, the use of natural draft is practically an impossibility.

With the use of mechanical draft there are two facts which influence the total initial cost of the boiler plant:

[1] President Prat-Daniel Corp., 101 Park Ave., New York.

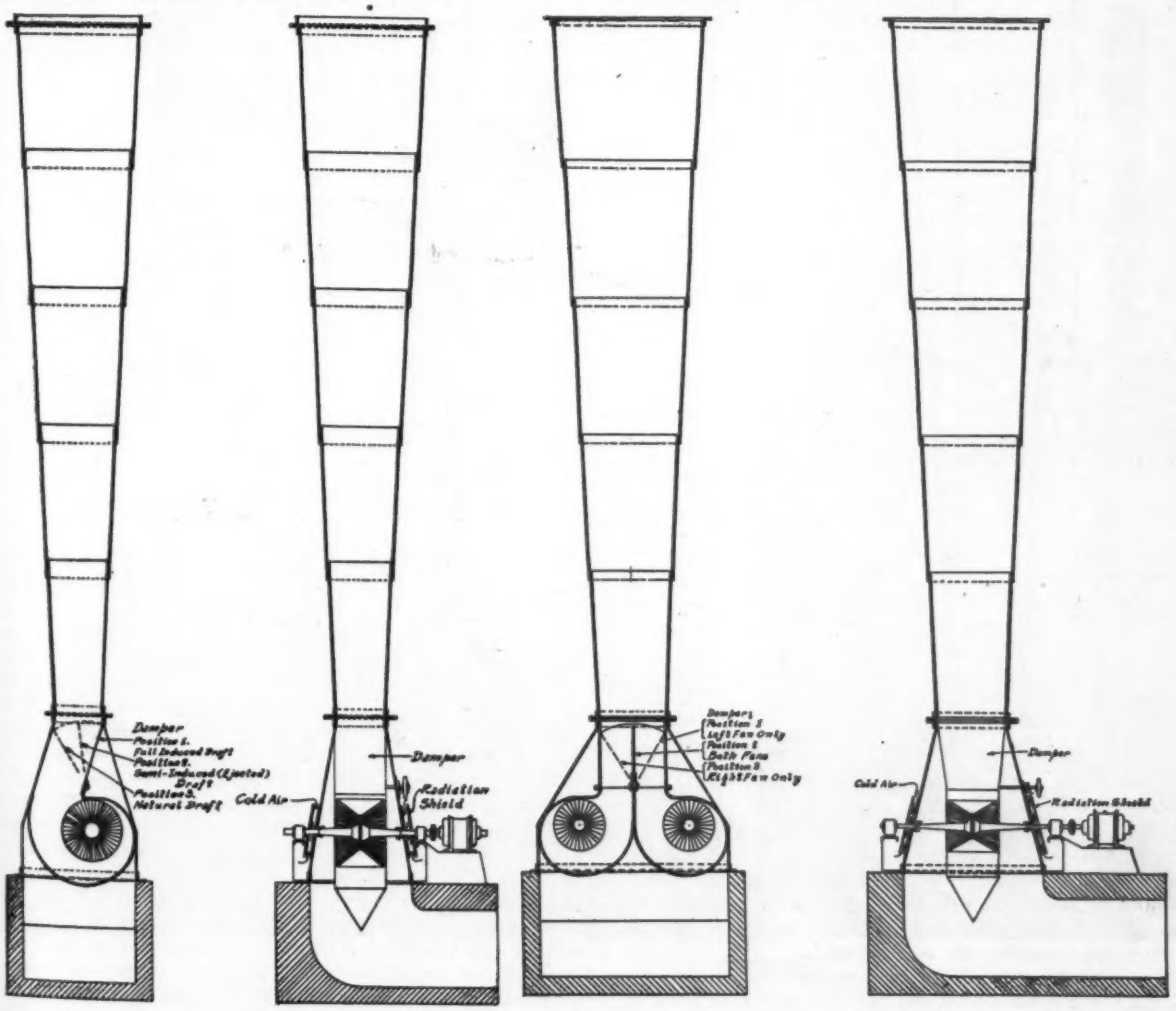


FIG. 1 FIG. 2

1. Initial cost of the mechanical draft stack and fan is less than that of a brick chimney.

2. The use of mechanical draft makes it possible to obtain a greater amount of steam from a smaller boiler because of the higher draft which is possible with this apparatus.

The question naturally arises as to the yearly cost involved in the operation of one type of draft as compared to the other. The interest and fixed charges upon a brick chimney will generally be greater than the power used to drive the fan. Wherever low pressure steam can be used to advantage as is the case in a paper mill, a small turbine is generally recommended for driving the fan, and the power cost is practically nil, since nine-tenths of the energy in the steam is returned to the low pressure line.

Mechanical Draft Equipment

In the United States the commonest form of mechanical draft consists of a fan which blows the gas through a duct and into a cylindrical stack. Gas appears to be such a light material that we do not often realize that it has a weight that cannot be disregarded. Twenty tons of gas per hour must be carried away from the average industrial 500 horsepower boiler burning one ton of coal per

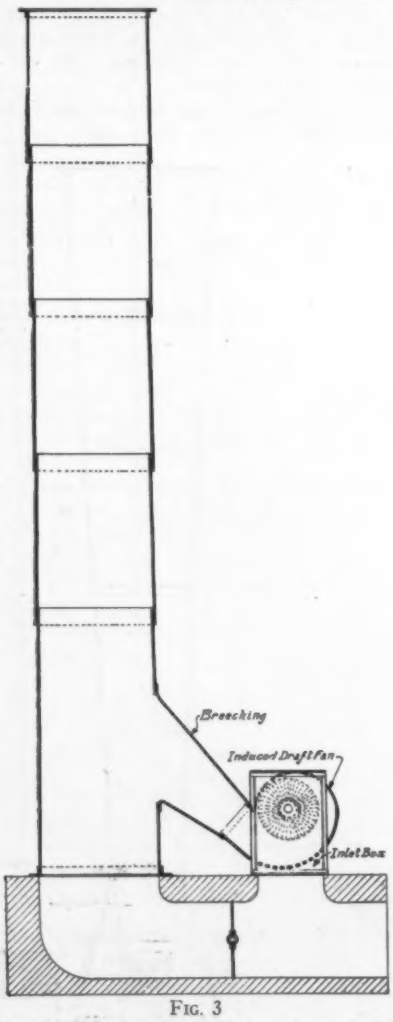


FIG. 3

hour. With such a weight, it will be readily appreciated that the fewer turns in the duct, over the boiler, through the fan and in the breeching connecting the fan and the stack, the less will be the power required to produce the required draft.

A form of mechanical draft in which the fan and the stack are built as a unit has been developed for the purpose of avoiding power losses due to unnecessarily changing the direction of the gas and any other friction losses that may be encountered during the passage.

The Stream-Line Stack

Engineers who have traveled through Europe have noticed for a good many years past, stacks of a peculiar shape. They are of steel and widen uniformly from the base toward the top. They are

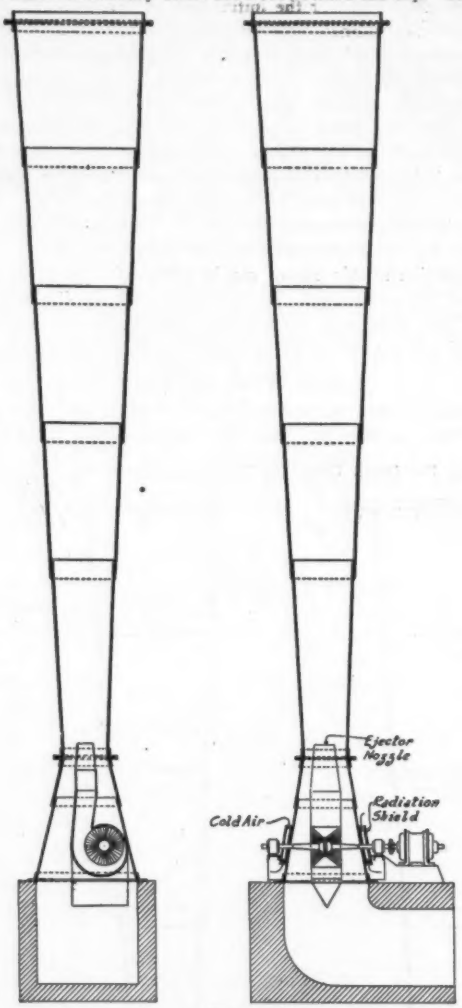


FIG 4

built on the roof or are projected through the roof of the boiler house, and thus save the cost of building a stack from the ground to that point. An installation at New Brunswick, N. J., is also equipped with a Thermix air heater, a device for recovering waste heat otherwise lost up the stack and returning it to the boiler furnace in the form of heated air for combustion, which replaces its equivalent value in coal—and which according to an actual boiler test at this plant, showed an actual saving of over 20 per cent of the fuel.

The Saturday Evening Post of August 22, 1925, describing development in Chile, shows a power plant equipped with twenty such stacks. In Europe this is the predominating form of mechanical draft and is now being rapidly adopted in the United States.

As a matter of fact, the idea is not new abroad. Originally developed by the well-known engineer, Louis Prat, it has been expanded and broadened in scope by his son, through the Prat-Daniel Corporation, of New York City, and its affiliated companies abroad, so that there are now over six thousand such stacks in operation in various countries.

From the exterior, the stream-line stack has a characteristic form, since from a moderate-sized base it narrows down to a throat and then widens as it reaches the top.

The engineering reason for this peculiar form is that there are two conflicting diameters in every induced draft stack. The first diameter to be considered, is the opening at the top of the stack, where the smoke must not issue into the atmosphere at too great a speed since this causes impact pressure at this point and increases power at the fan. The second diameter is the outlet of the fan, which is small. If the change from the small diameter to the large diameter is too abrupt, there is a waste of power due to eddy currents and impact resistance within the draft system itself. The throat of the stream-line stack is the size of the outlet of the fan. The large opening to the atmosphere at the top is connected to it by a gradually widening stack portion. It has been determined by engineers that the best angle to use is 7 degrees, and that a greater or less angle than this consumes more power, due to friction or eddy currents. This is due to the fact that when a fluid is ejected from a nozzle it normally assumes this angle of 7 degrees, which is known as the "streamline."

Fig. 1 shows clearly why the stream-line stack consumes less power than the ordinary mechanical draft installation. There are fewer bends and turns and abrupt changes in size of duct work. Fig. 2 shows a modification of the stream-line stack which has two fans within the base, and which also works upon high efficiency.

This should be compared with the type of mechanical draft installation shown in Fig. 3 in which the fan is connected with a cylindrical stack by means of a breeching. There are certain resistances which would be encountered in this breeching and cylindrical stack installation which would be considerably less, or avoided entirely, with the stream-line stack shown in Figs. 1 and 2. These are as follows:

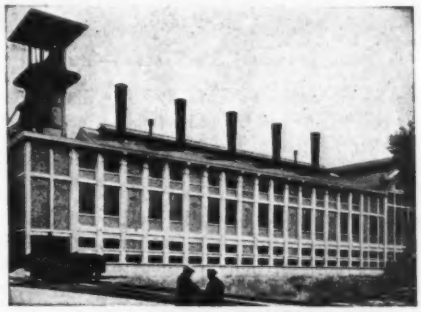
1. Inlet Resistance Less: The gas enters the fan of the stream-line stack from the stack base at a normal stream-line, thus avoiding resistance of inlet boxes.

2. Breeching Friction: There is no breeching at the fan outlet, thus avoiding friction losses at this point.

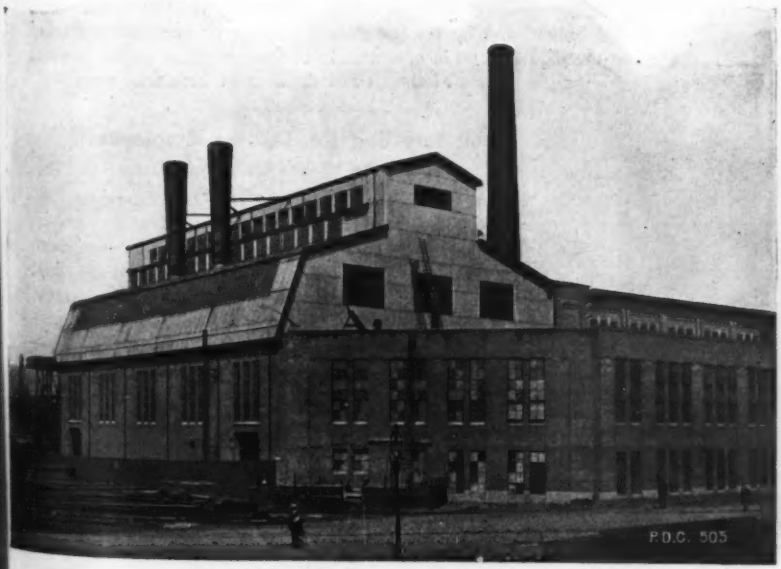
3. Changes of Direction: There is, practically speaking, no change in direction in the passage of the gas after it leaves the fan, as is the case when the breeching is connected to a cylindrical stack.

4. No Impact Resistance: Due to the fact that the limited-sized outlet of the fan is connected with the opening at the top of the stack by a diffuser with a normal stream-line, there is no impact resistance within the system, as is encountered at the point as shown in Fig. 3 where the breeching enters the stack.

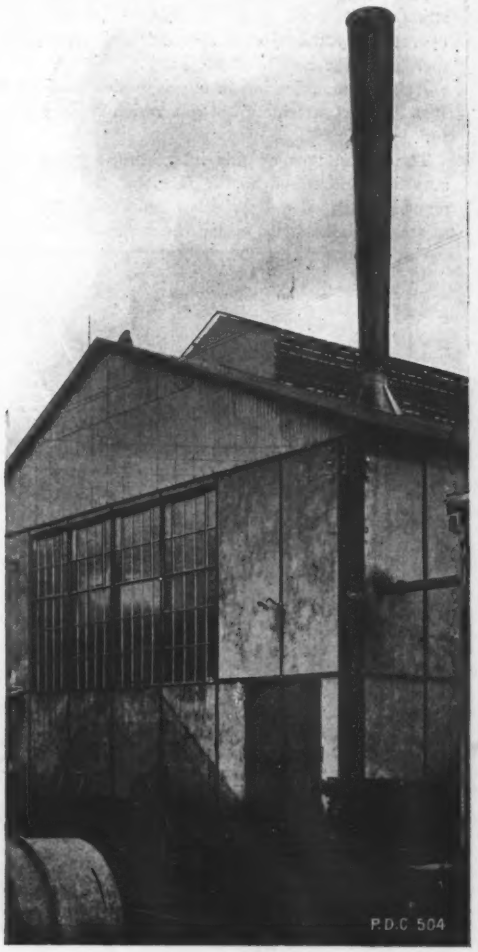
Particular attention is called to the saving of power due to the



Central Power Station Equipped With Ten Steam Line Stacks



Industrial Plant With Two Stacks For Four Boilers



Typical Industrial Installation For 1000 Boiler Horsepower

entire absence of any abrupt changes of area of the gas passages. The power loss due to such changes is more than appreciated by many engineers and may amount to a considerable part of the draft, as is shown in the following examples:

Assuming a sudden change in gas duct area causing a decrease of velocity of from 80 feet per second to 20 feet per second (as from a breeching after an induced draft fan leading to the stack), the following shows that there is a draft resistance amounting to 0.48 inches water gage.

Gas temperature	450°F.
Density gas at 450°F.	0.0436
Velocity gas in breeching after fan	80 ft. per sec.
Velocity gas in stack	20 ft. per sec.
Conversion factor, lb. per sq. ft. to inches w.g.	5.197
Acceleration due to gravity	32.2 ft. per sec.

$$\text{Draft loss} = \frac{D\,(V-v)^2}{2g \times 5.197} = \frac{0.0436\,(80-20)^2}{64.4 \times 5.197} = 0.48 \text{ in. water-gage draft loss}$$

Fig. 4 is another form of stream-line stack and is based upon the fact that a small fan which handles only a portion of the gas, ejects this gas through a nozzle into the throat of the stack, and thus entrains the remainder of the gas. This type of stack is naturally considerably lower in cost, because the expensive fan portion is about one-half as large as for ordinary mechanical draft. It does not have the same high efficiency of the installations shown in Fig. 1 and Fig. 2, but where only one or two fan horsepower is used, the efficiency is not of such great importance as the low initial cost.

A natural draft stack may be inexpensively equipped with a stream-line throat upon the interior and a small exterior fan for operating by the ejector system for increasing the draft without increasing the height of the stack.

Another modification is one in which cold air is used to eject a corrosive or extremely hot gas which could not be passed through fan blades.

The advantages of this interesting method of producing draft may be summarized by the fact that the investment in the boiler plant in a paper mill or other industrial plant producing its own steam can be reduced, since the same boiler can be made to produce more steam by a fairly high draft inexpensively attained. The cost of the apparatus itself is so much less than a brick chimney, that here is generally an initial saving of several thousand dollars.

Four Stream Line Stacks—One For Each Boiler

In concluding it might be of interest to remark that two of the most modern power plants in the United States have recently been erected in the South: one at Fort Lauderdale, Florida, and the other at Sanford, Florida. They are both equipped with stream-line stacks which are of course extremely large, since each stack is capable of handling the flue gas when the boilers are generating approximately 14,000 boiler horsepower. Although these stacks are not guyed, they withstood the Florida hurricane without damage, while four brick chimneys in the vicinity, 15 feet in diameter, were blown over by the force of the wind.

Moderate sized installations are also being built to a considerable extent, and by far the greater number of stream-line stacks of the six thousand in operation in various countries at the present date are for plants of the size of the average industrial plant.

Fort Lauderdale Steam Electric Station in Florida. These Self-Supporting Stacks Withstood Florida Hurricane In 1926, Without Damage

Interstate Bag Co. Insures Employees

[FROM OUR REGULAR CORRESPONDENT]

New York, N. Y., July 11, 1927.—The Interstate Bag Company, paper converters, with main offices at Walden, N. Y., has provided its employees there and in Newburg, N. Y., with a program of cooperative group health and non-occupational accident insurance. Under this contract, premiums will be shared by employer and employees.

As underwriten by the Metropolitan Life Insurance Company, the schedule of benefits provides women employees with $10 a week and men with $15. These payments will be made when, due to sickness from any cause or an injury received while off the job, an employee is kept away from work. Beginning on the eighth day of disability, benefits will continue for a maximum of thirteen consecutive weeks.

Besides the actual protective features of the plan, a health advisory bureau, maintained by the insurance company, regularly distributes pamphlets on disease prevention and health conservation.

Developments in the Pumping of Paper Stock *

By M. B. MacNeille [1]

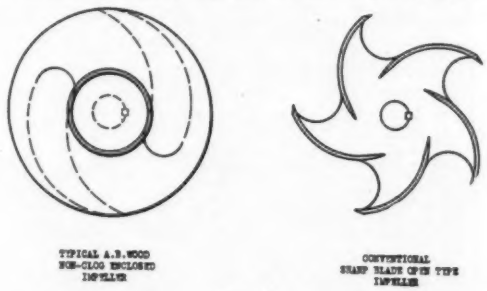
One of the most difficult of the many pumping problems encountered in paper mill work is the handling of paper stock. This is primarily due to the many varieties and various consistencies of the stock that must be pumped.

Thin stock and thick stock that is clean and devoid of large foreign particles or matted masses are handled in some mills, while in others particularly some classes of board mills the stock contains much trash, such as string, pieces of paper, rags, old felt hats, overalls, pieces of rubber gasket, match sticks and similar materials. It is such dirty stock containing these objectionable particles of foreign matter that causes the paper maker concern and gives him considerable difficulty in the maintenance of his pumping equipment. These foreign particles also seriously interfere with continuity of service when picked up by pumps of conventional design.

It is practically impossible for a centrifugal pump of the conventional type, having sharp impeller blades, (Fig. 1.), to pass particles of fibrous material such as described, without clogging, as such material quickly catches on the sharp blade ends at the entrance to the impeller and is held thereon by the water stream lines passing through the pump. As more material comes through it packs on and the pump finally is entirely choked and must be opened and cleaned.

One of the most recent interesting developments in pumps for handling paper stock is the Fairbanks-Morse stock pump (A. B. Wood's patent) which has already shown highly satisfactory results in the handling of stock of various consistencies in a number of mill installations. In order to appreciate the rather unusual constructional features of this pump, it is necessary to go back into the history of its development since it was primarily developed for sewage work and has been only slightly modified for handling paper stock. This type of pump was designed by A. B. Wood of the New Orleans Sewerage and Water Board in the development of a centrifugal pump which would pass large solids, stringy material, trash, leaves, rags, roots and other material that is invariably found in sewage.

Mr. Wood's broad experience in coping with the very unusual sewage disposal problem in New Orleans, convinced him that the ordinary centrifugal pump was not all that might be desired, be-



TYPICAL A.B.WOOD NON-CLOG ENCLOSED IMPELLER

CONVENTIONAL SHARP BLADE OPEN TYPE IMPELLER

FIG. 1

cause such ordinary pumps were continually clogging when handling quantities of foreign or suspended matter, unless such matter was effectively screened out before it entered the pump suction and such effective screening was found practically impossible.

Requirements of a Pump for Sewage

The City of New Orleans experienced much difficulty and many interruptions of service due to clogging and stoppage of the equipment they were using. Thus convinced of the need for better units, Mr. Wood originally set out to develop a pump which would:

1. Pass solids almost as large as the discharge or suction openings of the pump.
2. Handle twigs, rags, roots, leaves, etc., without clogging.
3. Develop a very steep capacity-head characteristic in order that a strong reserve pressure would build up when trash or foreign matter tended to clog up the pipe lines.
4. Be readily cleanable in the event of large foreign bodies

Cypress Roots and Stumps After Being Discharged Through 22-inch Wood Trash Pump.

FIG. 2

entering the suction pipe too large to pass through the impeller.

5. Develop reasonable efficiencies over a wide range of capacity.

Mr. Wood's first trash pump was a 14 inch machine and in

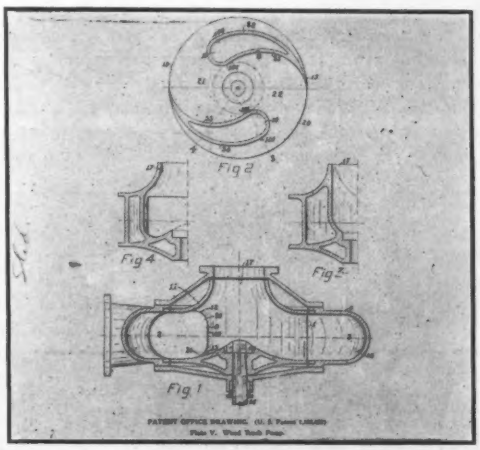


FIG. 3

order to observe whether or not his expectations has been realized, the pump was used for dredging out a saw-mill logging pond at Laurel, Miss. This pump operated very satisfactorily and the only real difficulty encountered was clogging at the intake end of the suction pipe, due to the pump endeavoring to pick up particles of trash too large to enter the pipe. Such trouble would undoubtedly have been eliminated had a cutter head or agitator been provided to break up this trash. Such cutter heads are usually made part of the dredging equipment.

This pump, however, proved itself capable of successfully handling and passing the materials that could enter it.

Mr. Wood's next effort was a 22 inch pump installed on the dredge Texas, property of the Atlantic Gulf and Pacific Co.

* Delivered before the American Pulp & Paper Mill Superintendents' Convention at Richmond, Va., on May 28, 1927.

[1] Manager Pump Div., Fairbanks, Morse & Company, Chicago, Ill.

This dredge was leased to the Board of Port Commissioners of New Orleans and was a modern, high grade outfit. The pump was driven by a 750 hp. engine and the outfit was placed in operation excavating a ship canal through a cypress swamp. Figure 2 ilustrates some roots and stumps that were passed through this pump, clearly exemplifying its non-clogging qualities.

Subsequent to Mr. Wood's experimental efforts, Wood pumps

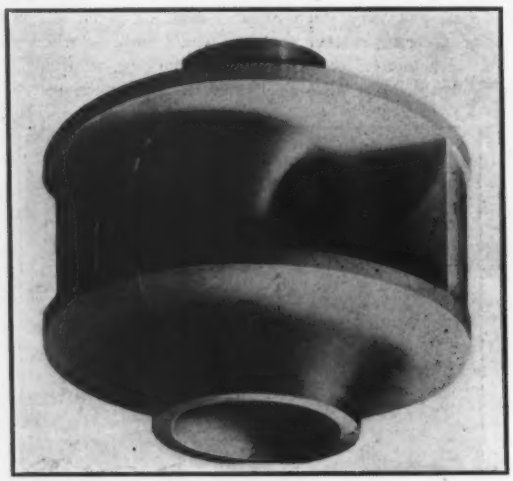


FIG. 4

in sizes 3 to 30 inch were built and were installed for handling unscreened sewage in the City of New Orleans and in many other municipalities. There is little on record, however, to show that many of these early Wood Pumps were used for handling paper stock.

Development of Paper Stock Pump

Fairbanks, Morse & Co. a little over two years ago, secured the manufacturing and selling rights under the Wood patents, as well as the consulting services of Mr. Wood, and immediately thereafter its large sales organization encountered and presented to their engineers, many new and interesting industrial problems for the application of Wood pumps, not the least of which was the pumping of paper stock.

The impeller of the pump on which Mr. Wood was granted U.

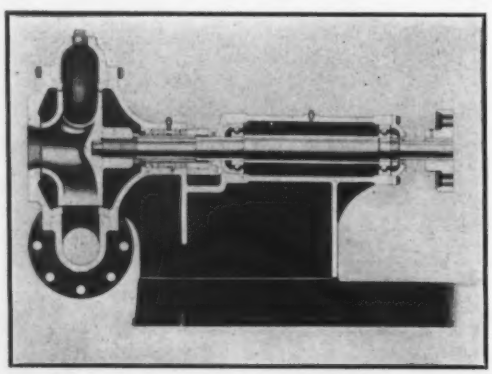


FIG. 6

S. Patent No. 1182439, May 9th 1916, is of the enclosed type and has two blades and two ports (Fig. 3 & 4). It has very open waterways with smoothed edges that will pass any materials that enter, regardless of shape of texture, up to the dimensions of a sphere in diameter equal to that of a pipe one size smaller than the discharge opening of the pump.

The outward appearance of the Wood pump resembles the ordinary clear water, side suction, centrifugal pump intended for heavy duty.

At the entrance end the blades are rounded on a considerable radius and are filleted with the sides or shrouds with a considerable radius, so that throughout the impeller water ways there are no sharp edges, corners, or projections on which materials may catch and clog. Two blades are provided as Mr. Wood sought in his design to reduce the number of impeller passages to the minimum required for balanced rotation and symetrical construc-

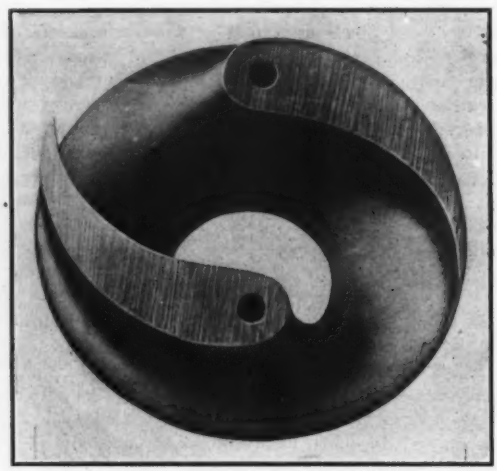


FIG. 5

tion. (Fig. 5). It will be noted that the blade gradually tapers to a narrow edge at the outer periphery of the impeller and that the blade end occupies but little of the periphery. Further, the form of the blade is such that a strong wedging action described by Mr. Wood as a coughing action, is exerted on materials passing through the impeller while they are being discharged into the pump casing.

It is apparent that mechanical and hydraulic balance are impossible in any design having less than two blades.

The construction of the Wood impeller is analagous to a tee

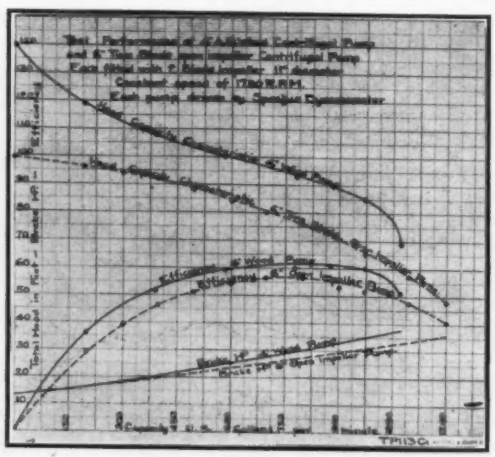


FIG. 7

if one can, for a moment, visualize the possibility of bending the two ends of the tee in opposite curved directions, with the side outlet of the tee used as an inlet port.

The liquid entering the Wood impeller and passing about the well rounded blade ends divides itself on the large radius at the blade end in such a way that any foreign material carried in the fluid naturally passes to the outer or working side of the blade where the velocities are highest and escapes without clogging. This point has been conclusively proven by such large fibrous articles as

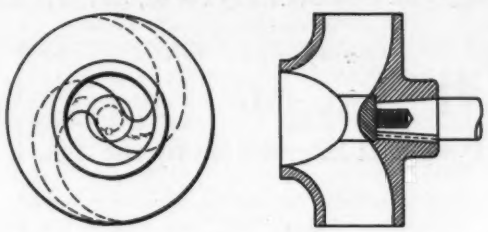
bed sheets passing through these pumps without clogging.

The cross sectional view of the Wood pump clearly illustrates its enclosed impeller construction, the large clearances provided throughout, the rugged shaft mounted on ball bearings, and the absence of bearings within the pump case which would be affected by materials passing through the pump.

As happens with most every noteworthy patented device, numerous imitations have appeared, particularly since Wood pump advertising has been broadcast. These imitations however, must necessarily avoid the essential features of the Wood design which are protected by a very strong patent that has been sustained in our higher courts.

The Pump Characteristics

Fig. No. 7 shows comparative performance of a 4 inch Wood pump and a 6 inch pump having two blade open impeller construc-



TYPICAL A.B.WOOD NON-CLOG PAPER STOCK IMPELLER

FIG. 8

tion of the older design. Both pumps are equipped with impellers 11 inches in diameter and both are tested, being driven at a speed of 1750 r. p. m. by the same Sprague dynamometer. The solid lines indicate the characteristics of the 4 inch Wood pump and the broken lines indicate the characteristics of the 6 inch open impeller pump. Of noteworthy interest in the high shut-off head developed by the 4 inch Wood pump which reaches the value of 140 feet, as compared with 99 feet, the shut-off head developed by the older design. Mr. Wood's wedging blade form is responsible for this difference and for the fact that a higher head throughout the pump's effective working range is developed with better efficiency and with little change in the horse-power consumed.

It is further interesting to note that the 4 inch Wood pump falls

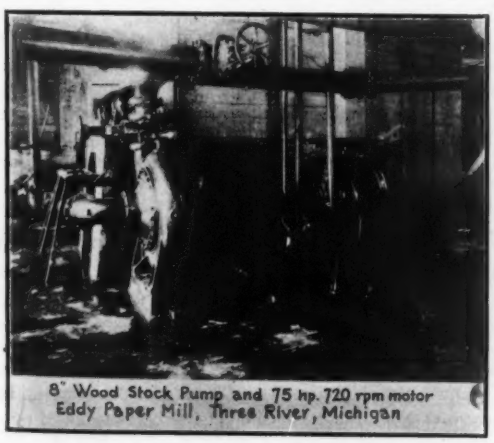


FIG. 10

very little short of pumping the same ultimate capacity as the 6 inch pump with which it was tested in comparison.

Design Modified for Kraft Pulp

After Wood pumps had been applied to pumping paper stock and various experiments conducted, it was Mr. Wood's opinion that the heavier stocks, such as high density Kraft, could be handled more efficiently if the impeller blades were brought back into the impeller eye and tapered to the centre of the hub so that the blades could take hold of this heavy material at the very centre of the shaft and begin forcing it outward to the pump case. (Fig. 8). This impeller has been found very effective in handling paper stock, since it eliminates the tendency of the strong suction existing at the impeller entrance to separate the water from the stock, which tendency is found in most centrifugal pumps when

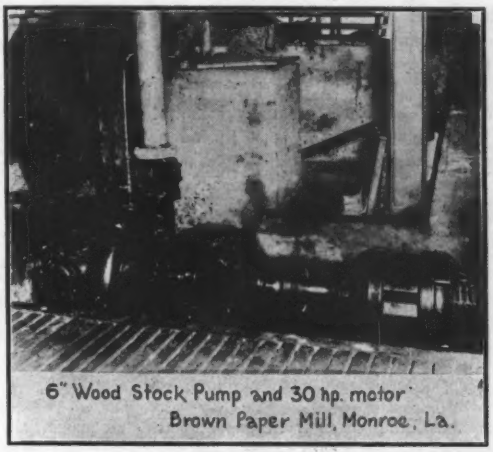


FIG. 9

heavy stock is handled. When coarse stocks, such as bagasse, are being pumped, this tendency to pull the water away from the stock is particularly pronounced. This type of impeller is at present being fitted to all Fairbanks-Morse A. B. Wood patent centrifugal pumps for paper stock, and patents have been applied for on this new feature.

Plant Installations

One interesting installation is an 8 inch Wood stock pump direct connected to a 75 h. p., 720 r. p. m. motor installed in the Eddy Paper Company mill at Three Rivers, Mich., for pumping stock from a stock chest to a battery of beaters. (Fig. 9). This pump is in daily use and has never caused a shut-down due to clogging, although the stock handled is not particularly clean.

FIG. 11

The material handled is of various grades and the pump has frequently handled consistencies of over 6 per cent. Many experiments were conducted on this pump, as when first installed is was a typical sewage pump. Experiments, however, indicated that for this severe duty certain mechanical changes were necessary and these were made. The total head pumped against, including friction, is 65 feet and tests have shown that the pump discharges in excess of 2500 gallons per minute against this head.

The Bogalusa Paper Co., Bogalusa, La., has installed a 3 inch Wood stock pump, direct connected to an enclosed ventilated motor. This pump handles 400 gallons per minute of white water or lime soda solution against a total head of 40 feet. This same company also has a 6 inch Wood stock pump direct connected to a 25 hp., 900 r. p. m. squirrel cage ball-bearing motor. This pump handles 300 gallons per minute of 6 per cent sulphate Kraft stock against 72 feet head. (Fig. 10).

In the Beaver Fibre Company's plant at Thorold, Ont., a 6 inch Wood stock pump driven by a 35 hp. motor is taking the output of a 125 ton Griley Unkle breaker beater. It is handling old paper stock.

In the plant of the Brown Paper Co., Monroe, La., a 6 inch Wood stock pump driven by a 30 hp. motor is delivering 300 gallons per minute of 45 per cent paper stock against a total head of 97 feet. (Fig. 11). This company also has a 4 inch Wood stock pump driven by a 10 hp. ball-bearing motor, pumping lime sludge and caustic liquor having a specific gravity of 1.17. This liquor contains 25 per cent solids. The capacity is 500 gallons per minute against a 30 foot head.

A Recent Installation

An 8 inch Wood stock pump was recently placed in the Robert Gair Mill, Montville, Conn., by Karl Lefren, Consulting Engieeer. This pump is delivering 1500 g. p. m. against a 35 foot head, and handles a stock that was very bothersome to an open impeller pump previously installed, which gave trouble by jamming which was caused by match sticks carried in the stock lodging between the stationary side plates and the blades of the open impeller. The 8 inch Wood pump does not jam or clog when handling this material. It is interesting to note that its predecessor was a 10 inch pump. The stock handled has at times been as heavy as 6.6 per cent density. The pump is driven by a 40 hp., 720 r. p. m. motor.

Cigarette Paper*

The Combustibility of Cigarette Paper and the Danger of Intoxication by the Ash.

By Job.

The combustibility of cigarette paper means that property whereby it burns at the same rate as the tobacco which it contains without leaving a black malodorous crust around the cigarette ash.

It is a mistake to think that it is sufficient to have a well beaten and hydrated stock to make the paper combustible. In order to make it burn at the same rate as the tobacco it must be continually in contact with atmospheric oxygen, since combustion is merely a rapid oxidation. If the beating has been pushed too far the fibers will be too closely compacted and thus prevent access of oxygen and proper combustion.

The beating of the stock is not as easy as imagined, and considerable experience is required to know when the stock is in the right condition. If the stock is beaten too much, the combustibility is destroyed. Though a well hydrated pulp gives a good appearance to the paper and closes up the pores, it has no direct effect on the combustibility.

Since about twenty years, in order to impart the desired burning properties to cigarette paper, manufacturers have been accustomed to add to the furnish certain fillers which make the paper more combustible and at the same time more opaque. The action of these fillers in improving the combustibility can be explained as follows: the fillers selected for the purpose are of low specific gravity and naturally they are insoluble in water. They penetrate between the fibers imparting a capillary porosity to the paper; and in the course of combustion this capillarity facilitates the penetration of air resulting in a more complete combustion than could be obtained with a close-textured paper without filler. The addition of a small proportion of cotton rags to the furnish can also facilitate combustion owing to the capillary structure of the fibers.

The most generally used fillers are calcium carbonate and magnesium carbonate. For some time before the war experiments were carried out on the use of alkaline-earth peroxides, such as magnesium peroxide, which not only facilitate combustion but also eliminate the disagreeable odor given off during the combustion of certain papers.

Theoretically paper should burn to carbon dioxide and water according to the following equation:

$$C_6H_{10}O_5 + 12O = 6CO_2 + H_2O$$

But combustion is never perfect, and there are formed secondary combustion products which make the paper burn with a disagreeable odor. By using peroxides, which have a higher oxygen content than the ordinary oxides, this trouble is overcome. Magnesium peroxide, for example, on burning decomposes into magnesia and oxygen according to equation

$$MgO_2 = MgO + O$$

and the liberated oxygen effects complete combustion.

These new mineral fillers have not yet come into general use; but they would certainly meet with considerable success if they could be obtained at a reasonable price.

Blanc fixe and china clay, on the other hand, interfere with combustion, as their specific gravity and consistency act to bind the fibers together.

As regards the alleged injuriousness of certain filler to smokers who inhale, a very simple calculation will show that the harm which they can do is generally very greatly exaggerated.

We shall suppose that these fillers consist entirely of copper oxide or of lead oxide. A person smoking twenty-five cigarettes a day would burn 612.5 square centimeters of paper weighing (assuming a 13 gram per square meter paper) 0.79625 grams, producing thereby 0.006927 gram of ash containing 0.000123 gram of copper oxide or of lead oxide. Even if the whole of these oxides were taken into the smoker's lungs by the smoke which he inhaled, it would take 22 years, at the rate of 25 cigarettes a day, before he inhaled 1 gram of poison. It will be admitted that this is not very alarming; and when an inveterate cigarette smoker complains that he is troubled in some way or other it is quite safe to blame the tobacco rather than the paper.

* Translated from La Papeterie 49, 150, 153, February 25, 1927, by A. Papineau-Couture.

Lake States Forest Experiment Station Annual Report

The pulp and paper industry in the Lake States will find much information of interest and value in the annual report of the Lake States Forest Experiment Station. The report not only gives the status of the various research problems on which the Station is working at the present time but also presents a brief but comprehensive picture of the progress of forestry in these states during the three years since the establishment of the Station.

As an indication of the importance of the pulp and paper industry in the Lake States it is of interest to note that of the eight reserch projects now under way seven have some bearing on pulpwood production. Following is a list of the projects now being carried on by the Station: 1—Management of Northern Hardwoods and Hemlock, 2—Management of Swamp Forests, 3—Possibilities of Aspen-Birch Lands, 4—Fire Studies, 5—Possibilities of Scrub Oak Lands, 6—Methods of Cutting in Jack Pine, 7—Leaf Litter Study and 8—Forest Insects.

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Conducted by THOS. J. BURKE, C.A., Sec-Treas

Industrial Waste Challenge To Accountants*

By Ray M. Hudson

The United States frequently has been described as the most wasteful nation in the world. It remained for statisticians in the United States Department of Commerce to produce figures showing the estimated waste in dollars. The figures are staggering. Further, they are a reproach to management and to accountants. Nearly half of the material, labor, and energy employed in six major industries of the country is wasted, according to the government's figures. The total annual output of manufactured goods is sixty billions of dollars. Management is charged with responsibility for at least half of the waste. Reduction of numbers of styles and forms manufactured and sold has brought about a large reduction in waste. This is known as "simplified practice." Application of the same principles to other branches of business, which may be brought about to a large extent at the suggestion of accountants, should effect additional savings. It is a subject with which the accountancy practitioner should be thoroughly familiar.—THE EDITOR.

In the war on waste being waged by Herbert Hoover, Secretary of Commerce, the startling disclosure was made that in six major industries in the United States 49 percent of the material, labor, energy, and human effort expended is lost or wasted. If the waste factor of these six industries is typical of all the industries in the country, with their annual output of more than $60,000,000,000 of manufactured goods, one can readily see the tremendous loss to the American citizen, for obviously the loss must be borne by him in the long run. But plans embracing the most modern accounting and operating methods are constantly being applied to various branches of industry throughout the country, and they are steadily cutting down this terrific waste.

Ray M. Hudson, chief of the Division of Simplified Practice, United States Department of Commerce, makes the waste-finding of Mr. Hoover the starting point of a study on "Stabilizing Business Through Waste-Elimination." His division has to do entirely with the reduction of variety in sizes, dimensions,, and immaterial differences in everyday commodities. It is a wide field—one in which he and his associates will find work for years to come. The reward comes in the millions, even billions, of dollars saved to the people of the country, by eliminating preventable waste in the making of unnecessary sizes and patterns and by concentrating on the cheapest possible production of standardized sizes which meet all demands.

Half of Material and Effort Wasted

The six major trades referred to by Mr. Hoover and the degree of waste in them were:

	Per cent
Metal trades	29
Boot and shoe manufacturing	41
Textile manufacturing	49
Building	53
Printing	58
Men's clothing	67
Average	49

In analyzing the relative responsibility for these wastes Mr. Hoover found that 50 per cent could be placed at the door of management, less than 25 per cent at the door of labor, and the amount chargeable to outside contacts, which neither management nor labor could control, was least of all. Mr. Hudson, discussing his own department's dealings with simplified practice in manufacture and reduction of variety in sizes and dimensions, says:—

"The values in such reduction can readily be demonstrated by actual examples. In 1914 the manufacturers of farm machinery had 240 varieties of drills and seeders; today they make 38. They used to make 209 varieties of the ordinary plow; today they make 30. Where ten years ago there were 2135 different implements divided over 12 types of classes of farm machinery, today are but 227—the balance have been eliminated as unnecessary.

"This has simplified design, production, selling, and even the accounting practices of these companies, and farmers have benefited through the better service of supply, the improved quality of the machines, and in the better value they obtain for their money.

Forty-Five Sizes Reduced to Five

"Up to one year ago there were 45 different sizes and styles of electric lamps; today there are 5. The 9 sizes of the 50-watt lamp have been replaced by one.

"Engineers in the lighting industry point out that simplification as applied in that industry for several years past has helped greatly to reduce the cost of lighting. In fact, the cost of illumination is about the only item in our daily cost of living that shows any marked decrease from prewar prices.

"Automobile manufacturers have applied simplification in the design and fabrication of their products with consequent decrease in the cost of production, improvement of service, and general benefit to all concerned.

"Several of the larger manufacturing companies have applied simplication to their purchases, with consequent reduction of inventory and of idle investment.

Saved $100,000 a Year

"The operators of a certain chain of hotels simplified their requirements and reduced costs of items simplified 20 per cent below former cost, released $350,000 from former inventories, and saved $100,000 a year.

* From The American Accountant.

"Simplification can be applied in almost any line of business. A large garage company simplified its equipment to one make of motor trucks and one make of passenger cars, and by so doing cut its spare-parts stock from 20,000 to 5,000 items, and correspondingly decreased its stockroom space, personnel, and investment. It bought fewer items but in larger quantities, and thus obtained lower prices when purchasing.

"Several of our railroads have likewise employed simplification to advantage in reducing stores stocks; one railroad cutting its inventory from $38,000,000 to $20,000,000, thus releasing $18,000,000 otherwise idle capital for more productive purposes

"City, county, and state purchasing officers have also found simplification useful in keeping down expenses, reducing administration costs, and thus have made the taxpayer's dollar go farther.

"Simplification is merely concentration on sizes, and the like, in most common demand. Many surveys have shown that 80 per cent of the business usually comes from 20 per cent of the varieties offered. The other 80 per cent of the variety that yields one one-fifth of the gross business is often a heavy drag on the industry, absorbing capital unnecessarily and running up overhead and costs in general to a point where the public refuses to buy."

"Typical examples of the application of simplified practice are as follows:—

	Formerly	Now	Reduction Per cent
MILL SUPPLIES, SHOP EQUIPMENT, FITTINGS, ETC.			
Files and rasps	1,351	496	65
Forged tools	665	351	47
Plow bolts	1,500	840	44
Sheet steel	1,819	263	85
Milling cutters			35
Die heads, self-opening			75
Grinding wheels	715,200	255,800	64
Average reduction			59
CONSTRUCTION MATERIALS			
Paving bricks	66	4	94
Asphalt	102	10	90
Steel reinforcing bars	40	11	72
Metal lath	125	24	81
Woven wire fence	552	69	87
Asbestos millboard	10	5	50
Eaves trough and conductor pipe	21	16	24
Concrete building units	115	24	80
Sand, lime, brick	14	3	78
Roofing slate	98	48	51
Average reduction			71
BUILDING MATERIALS, EQUIPMENT, FITTINGS, ETC.			
Face brick, smooth	36	1	97
Face brick, rough	39	1	97½
Common brick	44	1	98
Lumber, soft wood, yard sizes			60
Hollow building tile	36	19	47½
Builders' hardware—Items			26
Finishes			71
Sidewalk lights—sizes	120	6	95
Paint and varnish brushes	480	138	71
Blackboard slates	251	25	90
Tacks and nails	428	181	58
Average reduction			72½
GENERAL SUPPLIES AND FURNISHINGS FOR HOMES, HOTELS, HOSPITALS, CLUBS, ETC.			
Beds, mattresses, springs	78	4	95
Bed blankets	78	12	85
Sterling silver, flatware	190	62	67
Tinware, galvanized and japanned	1,154	873	24
Milk bottles	49	9	82
Milk bottle caps	29	1	96
Hotel chinaware	700	160	77
Restaurant chinaware	668	177	73
Dining-car chinaware	700	113	84
Hospital beds	67	4	94
Steel lockers	65	17	74
Average reduction			76½
PLUMBING			
Structural slate for plumbing purposes		Estimated	84
Range boilers	130	13	90
Hot water storage tanks	120	14	88
Brass lavatory and sink traps	1,114	72	94
Average reduction			89
BUSINESS DOCUMENTS			
Warehouse receipts, stock and delivery forms, etc.	Each previously made in a thousand different forms. There is now one standard form for each of these documents.		
Invoice, inquiry and purchase-order forms			
Bank checks, notes, deposit slips, notices, etc.			
Average reduction		Estimated	99.44

"The foregoing examples reflect the possibilities in this sector of the war on waste. The saving in national effort through cooperation between manufacturer, distributor, and consumer, as demonstrated by these examples, runs into hundreds of millions of dollars. There is a great area still untouched in which the application of waste-elimination measures may well save, not millions, but billions of dollars. The consequent reduction of manufacturing, selling, and distributing costs, and the release, for active use, of millions now tied up in slow-moving (because seldom wanted) stocks, combine to yield savings eventually reaching the consumer in lower prices. Thus his real wages are increasing and his standard of living advanced.

Efficiency Increased

"The results of this campaign to eliminate waste, together with the application of labor-saving machinery, the incentive of higher wages, and the better understanding of business economics has been to increase our national efficiency more than 50 per cent above prewar levels, as indicated by the increase in output per man-hour in many of our principal industries.

"However, competition between various industries is very keen, and profit margins have been declining steadily. According to the United States income-tax returns, in 1922, 212,535 firms doing a gross business of $80,331,000,000, had as net profits, after all expenses, taxes, and the like, had been paid, $6,953,000,000, or 8.6 per cent. In 1923, 233,339 firms doing $97,457,000,000 gross had a net profit of $8,321,000,000, or 8.5 per cent; and in 1924, 236,389 firms doing practically the same volume of business, that is $97,158,000,000, made a net profit of $7,586,000,000, or 7.8 per cent. It remains to be seen whether profits in 1925 and 1926 have fallen off at this same rate.

"It is significant that these 230,000 companies represent only 56 per cent of the corporations reporting. The other 44 per cent have consistently averaged a net loss of 10 per cent on $21,000,000,000 business done in each of the three years cited. This one fact alone indicates the opportunity for more intensive study of business conditions and methods and for the elimination of waste in the operations of the 170,000 firms who haven't made any profit in the three years referred to.

Manufacturers' Profits Declining

"Closer analysis of the situation shows profits declining in manufacturing, general trade, mining, agriculture, and also in the hotel and amusement business. Construction, public utilities, banking, and insurance made consistent gains in 1923 over 1922 and in 1924 over 1923. The net profits in eight major fields of American business enterprise on $119,747,000,000 worth of business done in 1924 was only 4.94 per cent.

"Analyzing the manufacturing industries, we find that profits were less in 1924 than in 1923 in the following lines. Metal products, food products, textiles, lumber, stone, clay and glass, paper and pulp. Profits in 1924 were equal to, or greater than, in 1923 for only the chemical, printing, leather, and rubber industries. The average net profits in 11 major branches of manufacturing in 1924 on $53,995,000,000 of business done were only 4.91 per cent.

"There can be no question but that profits of the future must come out of today's wastes. The Manufacturer has to pay high wages—labor will resist all efforts to cut its present scale. Material prices are higher, selling and other expenses of doing business are higher. On the other side, the consumers are stiffening their resistance to any rise in their own cost of living by refusing to buy at higher prices and turning their business to firms offering quality goods at lower prices To meet the conditions manufacturers must make greater effort to reduce waste of every form in their plants, their processes, and their products.

Primary Duty of Society

"Herbert Hoover says:—"The primary duty of organized society is to enlarge the lives and increase the standards of living of all people. The whole basis of an increased standard of living, of better human relations, of national progress—indeed, of the advancement of civilization—is the continuous improvement in production and distribution."

The New Responsibilities Of Business*

By Haley Fiske, Pres., Metropolitan Life Insurance Co.

Between the Scylla of the old rock principle, "Competition is the life of Trade"—and often the death of the traders!—and the Charybdis of government stone-wall regulation and anti-trust legislation, the business man has been obliged to steer warily and keep a good lookout. He has had rather a hard time of it during the last generation.

The general subject of the present annual meeting of the United States Chamber of Commerce, "The New Business Era," will enlighten the members and the public on the progress the business man has made in the narrow channel and how nearly he has reached the open sea.

"The New Responsibilities of Business" which I have been asked to discuss are of three characters: The relations of business men to each other, to the employees and to the public; and these three responsibilities are interrelated.

Three Responsibilities

I take it that there is one ideal in the three responsibilities and that is *service*. Business men have listened to the clarion call which has been ringing throughout the world; and they have organized to respond to it. This great chamber is the outstanding witness. Here you are with 1,500 constituent members, Chambers of Commerce and Trade Associations located in every state of the Union with 800,000 members, sending delegates here for reports and conference and planning action with the Advisory Committee representing the eight divisions of your organization. Here you are ready to receive light and leading. Here is the center to which your trade associations report. Let us look in a very general way upon the methods by which they are meeting their responsibilities, by citing typical instances.

1.—The relations of members to each other. They are summed up in one word—Co-operation. I have been allowed to read sixty reports of work of trade associations. In some associations there is the system of arbitration of disputes between members, in some cases compulsory, and even directed to disputes with non-members. In 59 associations there is joint advertising each of the particular business, carrying 1,237 pages in 25 periodicals.

Here are some of the activities of one or another of the trade associations: To solve a problem difficult and in some cases impossible as to how to bring about improvement in conditions to enable members, especially the weaker ones, to stay in business in what is characterized as "a deplorable competitive situation." To help small manufacturers by giving information they cannot afford to get. To obtain for common use legal opinions on trade difficulties. To put a stop to unfair competition, involving often graft in obtaining orders. To improve standards in order to meet and overcome cut-throat competition by inferior substitutes. To improve standards and qualities, to comply with building ordinances and to strengthen and improve the laws. To establish ethical codes in competition. To send out inspectors to factories to make tests to improve quality and raise standards. In the coal association to promote safety in mining.

Getting Rid of Wastes

Cooperating with the Federal Board for Vocational Training to give training courses in localities and by literature to enable merchants to survive competition of chain stores. Cooperation with the Department of Commerce in standardization and eliminating duplication. You may be familiar with the astonishing results achieved in this line—reducing varieties in hotel chinaware from 700 to 160, in milk bottles 49 to 9, in bed blankets 78 to 12, in paving brick 66 to 4, in asphalt 88 to 9, in files and rasps 1351 to 496. In one industry to find means to reduce failures—it is said they amount to 50 percent—arising largely from ignorance of conditions.

To set forth models of stores and of fixtures. In one industry $70,000 were saved on one item of the manufactures. One industry has surveyed establishments covering fifty millions of dollars of business to fix proper ratios of assets, liabilities, income and expenditures; and has brought about vocational training and furnished help to the small concerns.

In many industries considerable sums have been spent in research work, some on physical and chemical standards of raw material. It was research work which brought about the plans for model stores and accumulated a very large library of information. Research work in the laboratory has made data available for the cement association, is promising in another industry to revolutionize the product and to put the people in it "on top of the world," as one representative visualizes it, in another the improvement of lacquer. One industry has raised $500,000 for research. Another has a laboratory and a fellowship in a university, with special studies in sterilization of food products. Another a research seeking means to insure quality at a reasonable price. Another into nutritive values of food.

Real Cooperation

It is to be noted that all this research work is by associations for the benefit of all their members. It is real co-operation.

2.—Relations to the public. As to this it is certain that all of the work described is a service not only to members but to the public. It all goes to the improvement of what the business men make and sell and much of it goes to cheapen costs and selling prices. The constituent associations are also working for the protection of the buying public. One industry educates the employees to produce good output and has actually got 70,000 of them to sign pledges to give the right kind of work and to replace inferior work—many of these are foreign born who are thus trained in American ways. Several of the associations are fighting against misbranding and mis-stamping, in other words, against deception of the public as to material and quality. Some of them as associations guarantee the quality evidenced by standard labels. One association certifies an important product where deception would be easy and non-compliance with legal requirements might be concealed. Another association standardizes grades and correctly marks them upon the product. Another enforces standards recognized throughout the world for measurements and inspection.

Another association is engaged in eliminating trade abuses and unfair methods of competition, including such matters as short weight, short measure, misbranding and misrepresentation. One association has as its main object the adjustment of consumers' complaints. Another devotes much attention to the prevention of accidents in street travel. I think the improvement in the character of advertisements most noticeable; and I believe this is largely due to the discrimination and efforts of trade associations and to the joint counsel and ambition of the Association of Advertisers. Advertising seems to be developing as one of the fine arts.

Hoover, a Master Intellect

It would not be right to close this summary of what is being done by the business men in relation to each other and to the public without a tribute to the magnificent leadership and co-operation of the Department of Commerce under the direction of the master intellect of Herbert Hoover, whose vision is world-wide, whose analytical mind penetrates all industry, all commercial relationships, all problems of human life and welfare, all branches of economics.

3.—Relations to employees. It must be admitted that if business men as employers have hard times the history of the workers has been a sad one. In Colonial times there was no industrial class struggle. The first change came when improvements in

* From Nation's Business.

transportation broadened the market for goods, and increased competition and a wholesale field were developed. Cut prices resulted in effort to reduce costs and the first method was naturally reduction of wages.

Then came trade societies and strikes and the limitation of apprentices. Before 1830 there were labor organizations and strikes among printers, shoemakers, hatters, tailors, weavers, nailers and cabinet makers and unorganized strikes in the textiles and building trades. The merchant-capitalist developed the sweat-shop system. The next generation witnessed a consolidated labor movement and entry into politics. In the sixties perfection of machinery changed production from a nondescript to a machine basis; then more severe competition and wage cutting. For twenty years there were a number of experiments by working men and their associations in co-operative factories reaching a total of two hundred, with insufficient capital, which finally died out because of unsuccessful management.

Later came the growth of trade unionism; and labor seems to have come into its own. Taking wages and prices of 1913 as 100, the union wage rates last August were 238 and prices 150. Along with it has come increased productivity. Taking 1914 as 100, the 1925 index showed in iron and steel 149, automobiles 310, boots and shoes 116, pulp and paper 125, cement 157, leather 128, flour milling 139. The trade union principle for wages is based upon their purchasing power and in proportion to man's improved power of production.

There seem to me to be increasing signs of better understanding between employer and employee. There is much evidence that business men are regarding the human element in labor relationships; on the other hand that the trade unions are recognizing that peace and prosperity can be promoted by understanding, by co-operation, by recognition of a common interest in industry.

We are witnessing many experiments: personnel administration; co-operation in shop management even in some cases including wage adjustments; suggestion systems with prize awards not on wages but in the promotion of efficiency, in improvement of apparatus and condition under which it is used, and in saving of time, money, labor or material; single company unions; accident prevention; hygienic attention to workrooms; medical and surgical attention, dental work, nursing, cafeteria service, milk supply; profit sharing; stock purchasing by employees helped by contributions from employers; mutual benefit associations with corporate assistance; pensions; efforts in seasonal employments to cut down lay-offs and even giving allowances in cases of unemployment; intensive health work.

One of the most interesting experiments in this last mentioned work is in an industry with a very high death rate from tuberculosis and silicosis, where a campaign has begun financed by the United States Government and a life insurance company, whose joint contributions have been doubled by the employers.

One Phase of Group Insurance

I regard group life insurance with all its ramifications as entering in a most important way into industrial relations. It operates in two ways. One is to bring home to the employer his responsibility for the welfare of his employees as human beings and the economic quality involved in the brotherhood of man. The other is to bring home to the employee his correlative duties and the economic advantage of becoming a real partner in industry quite aside from any division of profits—although that may be an indirect result in the way of wages, continued employment and living conditions and ultimate precuniary rewards.

It is of immense benefit to industry that employees should remember that employers are human beings even though they act in a corporate form. In group insurance, employer or officers of employing corporation and workers are insured by one contract, the premiums being contributed by both parties—for 95 per cent of the group business is on the contributory plan.

The contract may provide for life insurance, accident insurance, insurance against sickness, pensions, insured savings, insured thrift and some day we hope unemployment. Incident to it in some companies are free nursing, the distribution of health and safety literature, surveys of places of employment, free advice on sanitation, healthful conditions as to light, air, pure water, safety, humidity, heat, elimination of dust, occupational disease control, accident prevention, even on machinery, manufactory methods, cost fixing, distribution and allocation of factory divisions, on personnel, the creation of good morale, recreation, housing, draining, diet, rest rooms, rest periods, assistance to building loan associations, mutual benefit societies, social organizations. A long catalog, is it not? And yet every one of these items is on the actual program of one or more of employers. The number of insured is rapidly increasing and is now over five millions and has more than tripled in the last six years. These activities of employers are co-operative in the same way as your trade associations are co-operative.

One company has seven divisions in charge of service to employers. When a problem is presented to the insurance company by an insured employer, the company communicates (of course without mentioning names) to every other employer in the same line of business, correlates the replies, adds its own advice based on research and study, and sends the result to the enquirer.

These seven divisions were organized by one of your officers, James L. Madden. After putting them into operation, he was released to the United States Chamber of Commerce to organize your Insurance Section. You will admit that this work has been efficiently done. Now, I am glad to say, he is to return to the service of the life insurance company indicated, to pursue, intensify and expand the work. His experience with you has broadened his outlook and intensified his zeal.

Having reviewed the efforts of business men to live up to their duties to the employed, it is most interesting to observe the reaction upon organized labor. I findL:T.eDUETAOINETAOINN the words of Mr. Green, the president of the American Federation of Labor: "The employers and employes owe it to themselves, to all who are dependents of industry and to our nation to avoid subterfuges, to accept and engage in collective bargaining, to recognize and respect the rights of each other," and he pleads for "the maintenance of harmonious relations through personal association, honest and sincere dealing, through conference and education."

Anybody who has watched the recent trend of the pronouncements from labor organizations and the speeches of their enlightened leaders like Mr. Green and Mr. Woll, must have recognized an entirely new attitude which labor is taking toward the employers. There is every evidence that organized labor is recognizing the responsibilities of capital and the representatives of capital.

Here is a new situation—"a new Business Era." Both sides are calling for mutual understanding and both are expressing the duty of public service. I have tried to point out by actual examples the "New Responsibilities of Business," the subject assigned to me. You are living up to them in an outstanding way. They are, to sum up, to elevate our ideals. The true ideal of the business man is to be of service to his country, to his associates in occupation, to the public, to those dependent upon him. Righteousness exalts business. High ideals elevate the individual. There is nothing in the world that appeals to a man's conscience like service. Ambition fades. The glory of wealth fades. Extent of power fades. What does remain here and throughout eternity is that every man try his best in serving God to serve well his fellow-men.

Standard Apron Conveyors

The Jeffrey Manufacturing Company, of Columbus, Ohio, have just issued a new catalog featuring the Jeffrey Standard Apron Conveyors. As shown by illustrations in this booklet, the wide range of application of Jeffrey Wood and Steel Apron Conveyors in handling both bulk and package materials, have given them a place in practically every industry. Typical layouts giving general dimensions accompany the tables of specifications.

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Obituary

Charles F. Flemings

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., July 12, 1927.—The funeral of Charles F. Flemings, who died Wednesday, July 6, after being identified with the paper trade for nearly a half-century, was held Saturday afternoon at the Eliot Union Congregational Church, Lowell, Mass., following a prayer at his late residence, 122 Parkview avenue, in that city. Mr. Flemings was prominent in Masonry. Delegations were present at the services from William North Lodge, A. F. & A. M.; Mount Horeb Royal Arch Chapter; Pilgrim Commandery, Knights Templar; and the Y. M. C. A. The Masonic burial service was used. Six of the pastmasters of William North Lodge were bearers.

Mr. Flemings, who was 67, began his work in the paper business 48 years ago with his brother, F. J. Flemings, Lowell. The name of the firm is now F. J. Flemings Estate. At the time of his death he was manager of the concern, which is a member of the New England Paper Trade Association. He was a deacon of the Eliot Congregational Church and secretary of William North Lodge for many years, superintendent of the Sunday School, director of the Lowell Y. M. C. A., secretary-treasurer of the Lowell Masonic District. Mr. Flemings was very highly thought of in the trade and all others with whom he came in contact.

Two sons, Merton Corson Flemings, of Syracuse, N. Y., the New York State representative of Carter, Rice & Co., Boston, and Amos William Flemings, of Lowell, a student at Boston University, a sister, Miss Ella Flemings, of Lowell, a granddaughter, Eleanor Louise Flemings, of Syracuse, N. Y., and numerous nephews and nieces, are living.

Frederick H. Bendig

[FROM OUR SPECIAL CORRESPONDENT]

PHILADELFHIA, Pa., July 11, 1927.—Frederick H. Bendig, who was continuously associated with E. I. DuPont de Nemours & Co., and with its predecessors, Harrison Brothers & Co., for a period of fifty-four years, passed away on July 6 after a lingering sickness at the age of eighty-one.

About three years ago his right leg was amputated, and this prevented him from further active contact with his work, but his interest in the chemical and chemical consuming industries never ceased, even up to the time of his passing. Mr. Bendig was on the pension roll of the DuPont Company.

Mr. Bendig was very prominently identified with a great many of the paper mills of a half century ago, some of which have since grown to be institutions of huge proportions. He played a vital part in the development of alum manufacture for the use of paper mills, water filtration, etc., and also in the development of ready mixed paints and the heavy chemical industry.

His business career practically all of which was in the service of the above mentioned companies began on November 4, 1873. He was sales manager of the Harrison Company during the period of 1902-1909. He leaves a widow and two sons.

Jesse Moore

TORONTO, Ont., July 11, 1927.—Jesse Moore, who for the past fifteen years has been a valued member of the city sales staff of the United Paper Mills, Toronto, passed away suddenly at his home in Toronto, July 7. Mr. Moore had been in failing health for some time and his demise was caused by a stroke as he was about to go on his holidays. Previously to becoming associated with the United Paper Mills, he was the Toronto representative of the Howard Smith Paper Company, Montreal. Mr. Moore is survived by his wife. The remains were interred in Prospect Park Cemetery and the funeral was attended by a large number of paper mill and paper house representatives.

Perfecting Federal Tax System

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 8, 1927.—An appeal to business organizations in the United States to cooperate with the Congressional Joint Tax Committee in the involved task of overhauling and perfecting the Federal tax system was made today by the Chamber of Commerce of the United States in a communication sent to its 1,500 member organizations.

Business, the National Chamber asserts, has a direct interest in the systematic revision of the federal revenue system.

"The existing system," it adds, "is essentially a war product and the revisions since the close of hostilities have been made in a more or less haphazard manner as existing circumstances might determine, and little provision has heretofore been made for securing the opinion of the most vitally interested section of the public—the taxpayers. The present situation, however, is quite different. The Congressional Joint Tax Committee is a continuing body and is very anxious to secure criticisms, comments and constructive suggestions from the taxpayers."

The Chamber is careful to point out that the work of the Joint Committee has nothing to do with immediate tax reduction nor primarily with rates but that it will deal rather with questions of administration and simplification, such as interest provisions, statutory time limits, installment sales, capital gains and losses, earned income credit. It points out that the program of immediate tax reduction will be taken up by the Ways and Means Committee and reiterates its demands for a reduction of the corporation tax to not more than ten per cent, repeal of the federal estate tax and elimination of the remaining war excise taxes.

The announcement is also made that the Committee on Taxation of the Chamber will prepare and make public some proposed reforms which should be considered but stress is laid upon the complexity of the task.

"It is to be remembered," the Chamber continues, "that the formulation of a satisfactory internal revenue law is a difficult matter and can only be accomplished by means of a thorough study, necessarily extending over a considerable period of time. All business organizations, corporations and individuals are strongly urged to point out the defects which they have found in the present internal revenue system in as specific a manner as possible and to submit well considered suggestions to improvement."

Regarding the corporation income tax the Chamber asserts that the reduction of this should not be made contingent upon the available surplus.

"The Chamber's Committee on Taxation," the statement concludes, "has reached a tentative decision that the reduction of the corporate income rate should not be wholly dependent upon available surplus, but as a matter of equity and justice there should be a reduction to at least ten per cent when the revenue statute is revised in the next session of Congress."

England Sends Man to Syracuse Forestry School

SYRACUSE, N. Y., July 5, 1927.—The British Government is sending to the New York State College of Forestry K. A. Chowdhury, B.Sc., who has been selected for the post of Wood Technologist at Dehra Dun, India. Mr. Chowdhury is coming to Syracuse in order to take a two years' intensive course under Dr. H. P. Brown, head of the Department of Wood Technology at the College. Dr. Brown, a recognized authority on wood structures, is well known in British forestry circles, having spent two years in India classifying the woods of that country. As joint author with Mr. R. S. Pearson, formerly Forest Economist at the Forest Research Institute, Dehra Dun, India, and now director of the Forest Products Research Laboratory of South Farnborough, England, Dr. Brown is preparing an illustrated Manual of Indian Timbers—one of the results of his work in the Indian Government Forest Service.

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Cigarette paper .....100 cs.
Wall paper .....3 bls., 7 cs.
Paper hangings .....12 bls., 12 cs.
News print .....1,228 rolls
Printed paper .....21 cs.
Printing paper .....64 rolls, 111 cs.
Wrapping paper .....2 rolls, 42 cs.
Packing paper .....16 rolls, 5 bls., 25 cs.
Stencil paper .....63 cs.
Surface coated paper .....161 cs.
Filter paper .....16 bls., 15 cs.
Drawing paper .....62 cs.
Tracing paper .....cs.
Decalcomania paper .....73 cs.
Filter pulp .....40 bls.
Straw pulp board .....202 rolls
Straw board .....2,022 rolls
Sulphite paper .....240 rolls
Paper boxes .....29 cs.
Paper tubes .....26 pkgs.
Cover paper .....9 cs.
Gummed paper .....3 cs.
Colored paper .....5 cs.
Photo paper .....3 cs.
Silk paper .....3 cs.
Miscellaneous paper
268 rolls, 61 bls., 45 pkgs., 107 cs.

CIGARETTE PAPER

Standard Products Corp., De Grasse, Havre, 100 cs.

WALL PAPER

F. J. Emmerich, New York, Hamburg, 1 bale, 4 cs.
Wedeman, Godknecht & Lally, Inc., Thuringia, Hamburg, 2 bls.
J. A. Hearn & Son, France, Havre, 3 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., Minnesota, London, 10 bls., 8 cs.
W. H. S. Lloyd & Co., Laconia, Liverpool, 2 bls.
Whiting & Patterson Co., Inc., Olympic, Southampton, 2 cs.
Whiting & Patterson Co., Inc., Aquitania, Southampton, 1 cs.

HANGING PAPER

Hensel, Bruckman & Lorbacher, De Grasse, Havre, 1 cs.

NEWS PRINT

Parsons & Whittemore, Inc., New York, Hamburg, 186 rolls.
Parsons & Whittemore, Inc., Berlin, Bremen, 448 rolls.
Perkins, Goodwin & Co., Luetzow, Bremen, 499 rolls.
The Times Co., Gripsholm, Gothenburg, 95 rolls.

PRINTED PAPER

Keller Dorian Paper Co., France, Havre, 21 cs.

PRINTING PAPER

Keuffel & Esser Co., New York, Hamburg, 64 rolls.
Heemsoth, Basse & Co., New York, Hamburg, 25 cs.
P. C. Zuhlke, Lapland, Antwerp, 25 cs.
Walker, Goulard, Plehn Co., Berlin, Bremen, 26 cs.
E. Dietzgen & Co., Volendam, Rotterdam, 14 cs.
Premier Shipping Co., Volendam, Rotterdam, 3 cs.
C. Steiner, Volendam, Rotterdam, 18 cs.

WRAPPING PAPER

F. C. Strype, Lapland, Antwerp, 17 cs., 2 rolls.
Birn & Wachenheim, Lapland, Antwerp, 25 cs.

PACKING PAPER

Haule Wax Paper Manfg. Co., New York, Hamburg, 25 cs.
K. H. Schmidt, New York, Hamburg, 16 rolls.
National Consumers Paper Corp., Easterner, Rotterdam, 5 bls.

SILK PAPER

Meadows, Wye & Co., Eastern Moon, Rotterdam, 3 cs.

STENCIL PAPER

Arlac Dry Stencil Co., New York, Hamburg, 63 cs.

PHOTO PAPER

Herbert & Henson, Minnesota, London, 2 cs.
Drem Products Corp., Thuringia, Hamburg, 1 cs.

SURFACE COATED PAPER

Whiting & Patterson Co., Inc., New York, Hamburg, 2 cs.
Whiting & Patterson Co., Inc., Thuringia, Hamburg, 5 cs.
P. C. Zuhlke, Lapland, Antwerp, 48 cs.
Gevaert Co. of America, Lapland, Antwerp, 92 cs.
Globe Shipping Co., Volendam, Rotterdam, 14 cs.

COLORED PAPER

C. W. Williams Co., Lapland, Antwerp, 5 cs.

FILTER PAPER

G. Luecders Co., Roussillon, Bordeaux, 6 bls.
H. Reeve Angel & Co., Inc., Minnesota, London, 8 cs.
H. Reeve Angel & Co., Inc., Olympic, Southampton, 7 cs., 10 bls.

DRAWING PAPER

Keuffel & Esser Co., Tuscania, London, 3 cs.
Keuffel & Esser Co., New York, Hamburg, 44 cs.
Favor, Ruhl & Co., De Grasse, Havre, 10 cs.
H. Reeve Angel & Co., Inc., Minnesota, London, 5 cs.

TRACING PAPER

Keuffel & Esser Co., New York, Hamburg, 6 cs.
Meadows, Wye & Co., Eastern Moon, Rotterdam, 6 cs.

DESIGN PAPER

D. C. Andrews & Co., Adriatic, Liverpool, 1 bale.

DECALCOMANIA PAPER

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B. F. Drakenfeld & Co., Adriatic, Liverpool, 14 cs. (simplex).

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WRITING PAPER

Globe Shipping Co., De Grasse, Havre, 1 cs.
Guaranty Trust Co., France, Havre, 1 cs.

GUMMED PAPER

Happel & MacAvoy, New York, Hamburg, 3 cs.

COVER PAPER

International Forwarding Co., Thuringia, Hamburg, 9 cs.

FILTER PULP

J. Manheimer, New York, Hamburg, 40 bls.

STRAW PULP BOARD

J. P. Heffernan Paper Co., Burgerdyk, Rotterdam, 92 rolls.
J. P. Heffernan Paper Co., Volendam, Rotterdam, 110 rolls.

STRAW BOARD

Perkins, Goodwin & Co., Burgerdyk, Rotterdam, 334 rolls.
A. Vuyk, Burgerdyk, Rotterdam, 124 rolls.
R. Wilson Paper Corp., Sacandaga, Rotterdam, 192 rolls.
R. Wilson Paper Corp., Volendam, Rotterdam, 156 rolls.
A. Vuyk, Volendam, Rotterdam, 759 rolls.
Perkins, Goodwin & Co., Volendam, Rotterdam, 192 rolls.
Spaulding & Tewksbury, Volendam, Rotterdam, 76 rolls.
State Bank, Volendam, Rotterdam, 189 rolls.

SULPHITE PAPER

Insight Paper Co., Bergensfjord, Frederickstad, 240 rolls.

PAPER BOXES

Phoenix Shipping Co., New York, Hamburg, 29 cs.

PAPER TUBES

H. de Maguinn, France, Havre, 26 pkgs.

MISCELLANEOUS PAPER

H. D. Catty & Co., Burgerdyk, Rotterdam, 3 cs.
H. de Maguinn, De Grasse, Havre, 25 cs.
Keller, Dorian Paper Co., De Grasse, Havre, 8 cs.
Japan Paper Co., De Grasse, Havre, 1 cs.
Japan Paper Co., Roussillon, Bordeaux, 15 cs.
E. & J. Burke, Ltd., Roussillon, Bordeaux, 3 cs.
Van Oppen & Co., Thuringia, Hamburg, 1 cs.
H. D. Catty & Co., Thuringia, Hamburg, 1 cs.
The Eleto Co., France, Havre, 42 pkgs.
Tiffany & Co., France, Havre, 10 cs.
Guibout Freres, France, Havre, 4 cs.
Standard Products Corp., France, Havre, 18 cs.
Heemsoth, Basse & Co., Berlin, Bremen, 3 pkgs.
Arkell Safety Bag Co., Gripsholm, Gothenburg, 268 rolls.
C. K. MacAlpine & Co., Gripsholm, Gothenburg, 61 bls.
S. Gilbert, Volendam, Rotterdam, 14 cs.
F. C. Strype, Volendam, Rotterdam, 4 cs.

RAGS, BAGGINGS, ETC.

Darmstadt, Scott & Courtney, Burgerdyk, Rotterdam, 48 bls. bagging.
Bulkley, Dunton & Co., Burgerdyk, ——, 54 bls. bagging.
Forte Moran Co., Adriatic, Liverpool, 19 bls. rags.
J. Belikoff, Tuscania, London, 3 bls. rags.
L. Leibowitz, American Shipper, London, 43 bls. rags.
R. Canovai Figli, Blair, Naples, 45 bls. rags.
Bulkley, Dunton & Co., New York, ——, 53 bls. rags.
Mutnick Bros., Laconia, Liverpool, 13 bls. rags.
J. Cohen Son & Co., Laconia, Liverpool, 34 bls. rags.
Salomon Bros. & Co., Sacandaga, Antwerp, 23 bls. rags.
E. J. Keller Co., Inc., Sacandaga, Antwerp, 160 bls. flax waste.
E. J. Keller Co., Inc., Sacandaga, Antwerp, 50 bls. linen threads.
E. J. Keller Co., Inc., Western Ally, Antwerp, 56 bls. rags.
Walker, Goulard & Plehn Co., Western Ally, Antwerp, 197 bls. flax waste.
W. Schall & Co., Boston City, Bristol, 17 bls. rags.
Gallagher & Ascher, G. Washington, Bremen, 16 bls. rags.
Union Waste Co., Luetzow, Bremen, 40 bls. linen waste.
Bulkley, Dunton & Co., Luetzow, ——, 115 bls. rags.
J. A. Brookman & Co., Volendam, Rotterdam, 50 bls. rags.
Bulkley, Dunton & Co., Eastern Moon, ——, 118 bls. rags.
Castle & Overton, Inc., Eastern Moon, Rotterdam, 63 bls. rags.
Castle & Overton, Inc., Hague Maru, Japan, 50 bls. rags.
Castle & Overton, Inc., Tiradentes, Belgium, 28 bls. rags.
Castle & Overton, Inc., Clara Camus, Egypt, 162 bls. rags.
E. J. Keller Co., Inc., Clara Camus, ——, 92 bls. rags.
E. J. Keller Co., Inc., General Petitti, ——, 49 bls. bagging.
Bulkley, Dunton & Co., Cedric, Liverpool, 37 bls. rags.

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Brown Bros. & Co., Marengo, Hull, 198 coils.
W. Schall & Co., Hellen, Marseilles, 113 coils.
W. Schall & Co., Hellen, Barcelona, 78 bls.
New York Trust Co., Hellen, Barcelona, 48 bls.
Brown Bros. & Co., Carlier, Antwerp, 61 coils.
Brown Bros. & Co., Volendam, Rotterdam, 194 coils.
Brown Bros. & Co., Gripsholm, Gothenburg, 66 bls.
E. J. Keller Co., Inc., Skaneland, ——, 202 bls.
E. J. Keller Co., Inc., General Petitti, ——, 126 bls.

MANILA ROPE

Ellermans' Wilson Line, Minnesota, London, 51 coils.

CHINA CLAY

J. Dixon Crucible Co., Thuringia, Hamburg, 400 bags, 19,540 ks.

CASEIN

T. M. Duche & Sons, Roussillon, Bordeaux, 150 bags.
Brown Bros. & Co., Roussillon, Bordeaux, 400 bags.
T. M. Duche & Sons, Pan America, B. Aires, 417 bags.
Kalbfleisch Corp., Pan America, B. Aires, 1,365 bags.

WOOD FLOUR

State Chemical Co., Volendam, Rotterdam, 400 bags.

WOOD PULP

Perkins, Goodwin & Co., Bergensfjord, Drammen, 250 bls. sulphite.
Chemical National Bank, Bergensfjord, Oslo, 700 bls. sulphite.
American Exchange Irving Trust Co., Bergensfjord, Lillestrom, 200 bls. sulphate.
Johanson, Wales & Sparre, Inc., New York, Hamburg, 155 bls. sulphite, 25 tons.
J. Anderson & Co., Milos, Stugsund, 2,500 bls. sulphite, 500 tons.
Bulkley, Dunton & Co., Milos, ——, 4,550 bls. wood pulp, 910 tons.
Chemical National Bank, Milos, Iggesund, 1,500 bls. sulphate, 300 tons.
M. Gottesman & Co., Inc., Milos, Iggesund, 500 bls. sulphate, 100 tons.
J. Anderson & Co., Milos, Hernosand, 2,400 bls. sulphite, 400 tons.
Castle & Overton, Inc., Berlin, Bremen, 920 bls. wood pulp.
H. Hollesen, Inc., Berlin, Bremen, 520 bls. wood pulp.
M. Gottesman & Co., Inc., Alberta, Sebenico, 4,000 bls. wood pulp.
Castle & Overton, Inc., Easterner, Rotterdam, 180 bls. wood pulp, 28 tons.

(Continued on page 60)

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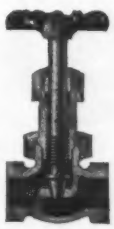

Sectional view, Fig. 705, Jenkins Bronze Needle Globe Valve, with bronze spindle.

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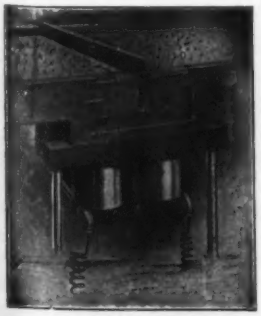

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It consists of special magnetic surfaces of great power over which the paper stuff is made to pass. As a result, all the iron and many other foreign substances are completely extracted. Hundreds of these devices are in use daily and no one of them has failed to give complete satisfaction. Write us for Bulletins and full details.

THE ROLAND T. OAKES CO., Holyoke, Mass.
Electrical Specialists. *Established 1885*

Imports of Paper and Paper Stock

(*Continued from page 58*)

Castle & Overton, Inc., Luetzow, Bremen, 547 bls. wood pulp.
E. M. Sergeant & Co., Gripsholm, Gothenburg, 350 bls. sulphite.

WOOD PULP BOARDS

Lagerloef Trading Co., Argosy, Kotka, 432 bls., 83 tons.
International Forwarding Co., Gripsholm, Gothenburg, 25 bls.

PHILADELPHIA IMPORTS

WEEK ENDING JULY 9, 1927

Price & Pierce, Ltd., Schenectadq, Ohrviken, 10,920 bls. chemical pulp, 1,849 tons.
Brown Bros. & Co., Schenectady, Obbola, 7,000 bls. sulphate, 1,000 tons.
Perkins, Goodwin & Co., Schenectady, Obbola, 700 bls. sulphate, 100 tons.
Johanson, Wales & Sparre, Inc., Schenectady, Hernosand, 1,590 bls. sulphate, 265 tons.
J. Anderson & Co., Schenectady, Kotka, 1,000 bls. sulphite, 200 tons.
Lagerloef Trading Co., Schenectady, Kotka, 289 rolls wood pulp boards, 49 tons.
Johnston Paper Co., Schenectady, Kotka, 94 rolls printing paper.
Paper Manufacturers Co., Inc., Schenectady, Kotka, 116 rolls news print.
Atlas Waste Manfg. Co., Pipestone County, Havre, 69 bls. rags.
E. A. Stone, Pipestone County, Havre, 174 bls. rags.
A. Hurst & Co., Pipestone County, Havre, 56 bls. rags.
Salomon Bros. & Co., Pipestone County, Havre, 122 bls. rags.
Stephano Bros., Pipestone County, Dunkirk, 18 cs. cigarette paper.
Castle & Overton, Inc., Pipestone County, Dunkirk, 31 bls. rags.
Atlas Waste Manfg. Co., Pipestone County, Dunkirk, 335 bls. rags.
O. G. Hempstead & Co., Southwestern Miller, London, 599 bls. rags.
Phila. Girard National Bank, Southwestern Miller, London, 127 bls. rags.
G. M. Graves & Co., Southwestern Miller, London, 122 bls. rags.
E. Mayer, Southwestern Miller, London, 20 bls. rags.
Katzenstein & Keene, Inc., Vincent, Dunkirk, 336 bls. rags.
Atlas Waste Manfg. Co., Vincent, Dunkirk, 120 bls. rags.
E. Butterworth & Co., Inc., Vincent, Dunkirk, 179 bls. rags.
The Stone Bros. Co., Inc., Vincent, Dunkirk, 199 bls. rags.
Katzenstein & Keene, Inc., Vincent, Havre, 451 bls. rags.
Castle & Overton, Inc., Vincent, Havre, 363 bls. rags.
D. I. Murphy, Vincent, Havre, 165 bls. rags.
A. Hurst & Co., Vincent, Havre, 230 bls. rags.
Congoleum Nairn Co., Vincent, Havre, 73 bls. rags.
E. A. Stone & Co., Vincent, Havre, 599 bls. rags.
V. Galaup, Vincent, Havre, 402 bls. rags.
A. L. Diament & Co., Vincent, Havre, 1 cs. wall paper.
D. I. Murphy, Silvercedar, Port Said, 209 bls. rags.
Castle & Overton, Inc., Progress, Hamburg, 126 bls. rags.
Castle & Overton, Inc., Seattle Spirit, Germany, 167 bls. rags.
Castle & Overton, Inc., Boston City, England, 93 bls. rags.
National City Bank, Blair, Naples, 440 bls. rags.
M. Friedman, Sacandaga, Antwerp, 45 bls. rags.
Phila. Girard National Bank, Darian, Manchester, 26 bls. rags.
F. Whitaker, Darian, Manchester, 12 bls. rags.
Chase National Bank, Blue Triangle, Oran, 412 bls. rags.
Chase National Bank, Blue Triangle, Algiers, 95 bls. rags.
Equitable Trust Co., Blue Triangle, Algiers, 305 bls. rags.
National City Bank, Karachi Maru, Palermo, 171 bls. rags.
J. A. Steer & Co., Boston City, Bristol, 60 coils old rope.
J. W. Hampton, Jr., & Co., Boston City, Bristol, 52 tons china clay.
National Waste Co., Eastern Moon, Antwerp, 98 bls. rags.
Castle & Overton, Inc., Eastern Moon, Antwerp, 368 bls. rags.
Woolsey Import Co., Eastern Moon, Antwerp, 202 bls. rags.
S. E. Ingber, Eastern Moon, Antwerp, 449 bls. rags.
Bulkley, Dunton & Co., Eastern Moon, ——, 90 bls. rags.
Robert Blank, Capulin, London, 105 bls. rags.
Robert Blank, London Exchange, London, 34 bls. rags.
Bulkley, Dunton & Co., Denderah, ——, 95 bls. rags.
E. J. Keller Co., Inc., Mexican, ——, 50 bls. rags.
E. J. Keller Co., Inc., Coer d'Alene, ——, 657 bls. rags.
Castle & Overton, Inc., Exeter City, Bristol, 162 bls. rags.
Castle & Overton, Inc., Hannover, Germany, 2,934 bls. wood pulp.
Castle & Overton, Inc., Hannover, Germany, 304 bls. rags.
Castle & Overton, Inc., Capulin, Ireland, 158 bls. rags.
Castle & Overton, Inc., Vincent, France, 60 bls. rags.
Castle & Overton, Inc., London Exchange, London, 139 bls. rags.
Castle & Overton, Inc., Manchester Shipper, England, 193 bls. rags.
Castle & Overton, Inc., Juston, Denmark, 89 bls. rags.
Castle & Overton, Inc., Galtymore, Scotland, 49 bls. rags.
Castle & Overton, Inc., Galtymore, Scotland, 103 bls. paper stock.

BALTIMORE IMPORTS

WEEK ENDING JULY 9, 1927

B. F. Bond Paper Co., Argosy, Kotka, 46 bls. news print.
American Exchange Irving Trust Co., Argosy, Kotka, 1,200 bls. sulphate, 202 tons.
Pagel, Horton & Co., Inc., Argosy, Hornefors, 3,600 bls. sulphite, 609 tons.
Pagel, Horton & Co., Inc., Argosy, Ornskoldsvik, 3,300 bls. sulphite, 557 tons.
Pagel, Horton & Co., Inc., Argosy, Ornskoldsvik, 7,200 bls. sulphate, 1,219 tons.
Scandinavian Pulp Agency, Inc., Argosy, Gothenburg, 1,218 bls. sulphite, 252 tons.
Scandinavian Pulp Agency, Inc., Argosy, Gothenburg, 635 bls. kraft pulp, 127 tons.
E. Butterworth & Co., Inc., Western Ally, Antwerp, 64 bls. bagging.
Congoleum Nairn Co., Western Ally, Antwerp, 1,324 bls. rags.
Congoleum Nairn Co., Western Ally, Antwerp, 60 bls. bagging.
Maryland Waste Co., Western Ally, Antwerp, 16 bls. rags.
Congoleum Nairn Co., Easterner, Rotterdam, 355 bls. rags.
National City Bank, Easterner, Rotterdam, 239 bls. rags.
National City Bank, Easterner, Rotterdam, 166 bls. bagging.
Bulkley, Dunton & Co., Westerner, —, 735 bls. wood pulp.
Bulkley, Dunton & Co., Yokohama, ——, 2,750 bls. wood pulp.
E. J. Keller Co., Inc., Blydendyk, Karlsruhe, 600 bls. wood pulp.
E. J. Keller Co., Inc., West Celina, Hamburg, 6 bls. rag pulp.

NORFOLK IMPORTS

WEEK ENDING JULY 9, 1927

American Exchange Irving Trust Co., Argosy, Kotka, 186 bls. sulphate, 31 tons.
National City Bank, Argosy, Kotka, 128 rolls news print.
Scandinavian Pulp Agency, Inc., Argosy, Gothenburg, 508 bls. sulphate, 101 tons.
Scandinavian Pulp Agency, Inc., Argosy, Gothenburg, 254 bls. sulphite, 50 tons.
E. Butterworth & Co., Inc., Western Ally, Antwerp, 281 bls. bagging.
National City Bank, Easterner, Rotterdam, 234 bls. bagging.
Bulkley, Dunton & Co., Goettingen, ——, 42 bls. rags.

BOSTON IMPORTS

WEEK ENDING JULY 9, 1927

T. D. Downing & Co., Darian, Manchester, 147 bls. new cuttings.
Ayres W. C. Jones, Darian, Manchester, 9 bls. cotton waste.
Baring Bros. & Co., Darian, Manchester, 278 bags hide cuttings.
Baring Bros. & Co., Darian, Manchester, 85 bls. new cuttings.
Baring Bros. & Co., Darian, Manchester, 209 bags hide clippings.
Leigh Textile Co., Darian, Manchester, 71 bls. cotton waste.
Castle & Overton, Inc., Darian, Manchester, 54 bls. new cuttings.
Chase National Bank, Darian, Manchester, 175 bls. rags.
R. F. Downing & Co., Darian, Manchester, 91 bls. new cuttings.
Brown Bros. & Co., Darian, Liverpool, 79 bls. old rope.
J. T. Lodge, Darian, Liverpool, 9 bls. rags.
American Express Co., Darian, Liverpool, 15 bls. rags.
J. B. Moors & Co., Darian, Liverpool, 57 bls. hide cuttings.
National Shawmut Bank, Darian, Liverpool, 22 bls. rags.
Castle & Overton, Inc., Easterner, Rotterdam, 931 bls. wood pulp, 149 tons.
Reis & Co., Easterner, Rotterdam, 100 bls. cotton waste.
E. J. Keller Co., Inc., J. Skinner, Hamburg, 115 bls. rag pulp.
Bulkley, Dunton & Co., Milos, ——, 3,550 bls. wood pulp.
Bulkley, Dunton & Co., J. Skinner, ——, 21 bls. rags.
Bulkley, Dunton & Co., Seattle Spirit, ——, 17 bls. rags.

NEW ORLEANS IMPORTS

WEEK ENDING JULY 9, 1927

E. J. Keller Co., Inc., F. Luckenbach, ——, 950 bls. bagging.
E. J. Keller Co., Inc., F. Luckenbach, ——, 70 bls. rags.

National Fall Conference Plans

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., July 11, 1927.—Tentative plans are being formulated for the Fall Conference of the National Paper Trade Association to be held in Chicago at an early October date. The conference bids fair to be larger than ever before. Charles W. Collier reports that a large number of paper manufacturers and dealers have applied for exhibition space in the Tenth Annual Convention and Exposition of the Direct Mail Advertising Association which will be held at the Stevens Hotel in Chicago, October 19, 20, and 21. Over 120 of the 160 available booths have been taken and will be occupied by the products directly allied to mail advertising. A majority is enjoyed by the paper trades. A regular attendance of 3000 delegates is expected and 100,000 tickets will be discreetly distributed by the dealers to insure a large but carefully selected audience. In addition to the exhibitions an interesting program is being work out with four half day sessions scheduled to the general theme of the convention, "Combating the Rising Cost of Selling."

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New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, July 13, 1927.

While business in the local paper market was dull and quiet during the past week, mainly due to the summer vacation period, a cheerful sentiment prevails throughout the industry, and many close observers of the situation predict a general expansion of trading in the near future. Although the prevailing demand for the various grades is light, prices are holding up as well as can be expected, and inquiries for future requirements are coming along in fair volume.

The condition of the news print market is normal for the time of the year. Production is being maintained along heavy lines and the output is being absorbed by the leading publications in a fairly satisfactory manner. Spot offerings are ample for current needs and there has been no change in the schedule of prices.

Production of paper board is expanding and the various grades are in steady request. Prices remain unaltered. A moderate amount of business was transacted in the fine paper market during the week. Tissues continue in excellent demand. The tone of the coarse paper market is strong, and wrapping paper is still moving into consumption at a good pace.

Mechanical Pulp

No new developments have transpired in the ground wood market, and both imported and domestic mechanical pulp continue in seasonal request. Prices remain unchanged, and reports of shading are infrequent. Supplies on hand are generally considered sufficient to take care of current requirements.

Chemical Pulp

Most of the business transacted in the chemical pulp market during the past week was along routine lines. Domestic and foreign producers are reported to be well sold ahead. Offerings at the present time are limited and the prices which have prevailed for some little time are being maintained without difficulty.

Old Rope and Bagging

Both domestic and imported old rope are in fair demand, and manila rope, especially, is beginning to arouse more interest. Prices remain steady and unchanged. Demand for bagging is seasonal and a more lively market is anticipated in the near future, when the mills require to replenish their stocks. Prices are holding up very well, in most instances.

Rags

The tone of the domestic rag market is easier. Prices of several grades of shirt cuttings have declined slightly. However, this condition is only seasonal and prices will probably become firmer when trading begins to expand again. The foreign rag market is still quiet and quotations on lindsay garments and dark cottons are lower.

Waste Paper

No radical changes were recorded in the paper stock market during the past week. Old kraft machine compressed bales are still in strong demand at firm prices. Hard white No. 1 shavings are now offered at from $3.25 to $3.35, and No. 2 at from $2.75 to $2.90. No. 1 white news is in excellent request and is selling at from $1.55 to $1.60.

Twine

Trading in the twine market during the past week continued along routine lines. A fair number of inquiries are reported to be in the market for future business. Prices continue steady and unchanged from the basis which has prevailed recently. The twine industry is considered to be in a good position for the time of the year, and many authorities look for general expansion after the end of the holiday season.

St. Louis Paper Can Co. Sold

ST. LOUIS, Mo., July 9, 1927.—The St. Louis Paper Can and Tube Company, a business started here 27 years ago by two brothers, John H. and Henry W. Kuechenmeister, has been sold to a national concern for a price understood to approximate $870,000, and the brothers, retiring, are keeping a large financial interest in the new corporation. The company is located at Big Bend boulevard and Missouri Pacific tracks, Maplewood.

The Sefton Manufacturing Corporation, owner of a number of kindred factories, with headquarters at Chicago, completed the purchase last Thursday and will take over the plant here on Tuesday. The new corporation, to conduct the Maplewood establishment, is the Sefton National Fiber Can Company. William P. Hicks is coming here from Chicago as its president.

The Kuechenmeisters started their business career in 1900, with a small shop at Second and Morgan streets. The owner of the property, skeptical about their ability to make good, forced them to borrow money from a friend of their father to cover the first six months' rent, an acquaintance related. The enterprise grew and was incorporated in 1904 for $10,000. It moved to 3100 North Broadway, later to a plant in the Union boulevard northwest industrial district and six years ago to the present five-acre site and two-and-one-half acre building in Maplewood.

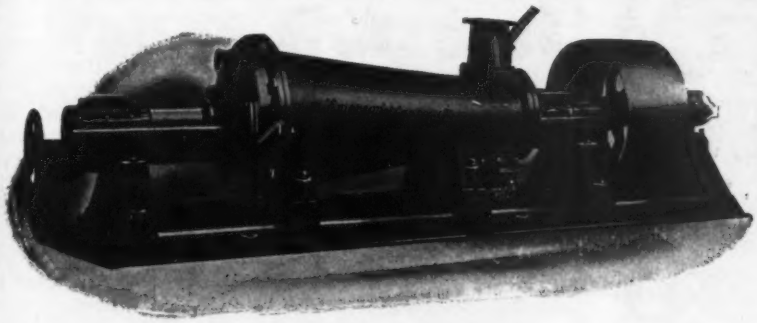
Bids and Awards for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 12, 1927.—The Government Printing Office has received the following bids for 105,000 pounds of 25x30—No. 2 binders board: Whitaker Paper Company, at $64.00 per ton; Mathers-Lamm Paper Company, $61.95; Barton, Duer & Koch Paper Company, $61.90; Walker Goulard Plehn Company, $66.00; Consolidated Paper Company, $63.00; and Dobler & Mudge, $61.90.

The following bids have also been received for 15,000 pounds of 26x38—marble grained jute board: C. B. Hewitt & Bros., Inc., at $85.00 per ton less 1 per cent; Mathers-Lamm Paper Company, $86.75 and $92.75; Philip Rudolph & Son, Inc., $93.40; R. P. Andrews Paper Company, $93.90; Whitaker Paper Company, $85.37; Reese & Reese, $106.00; and Lindemeyr & Harker, $108.50.

The Virginia Paper Company has been awarded the contract for furnishing the Brooklyn navy yard with 1,200 reams of 8x13 heavy white typewriter paper at $1,452.03, bids for which were received by the Bureau of Supplies & Accounts, Navy Department, on June 7.



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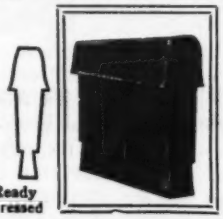
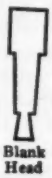


Ready Dressed



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Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, July 13, 1927.

Trading in the local chemical market was mostly along seasonal lines. Manufacturers continue to make substantial shipments on contract. Inquiries for future business are being received in fairly satisfactory volume, and the outlook for the last half of the year is promising. Prices of most of the raw materials used in the paper mills are holding up to schedule and there is not much talk of concessions around.

BLANC FIXE.—The blanc fixe market is in a sound position and the demand for this product is excellent for the time of the year. Prices remain unchanged from the previously quoted basis. The pulp is still selling at $60 per ton, in bulk, and the powder is quoted at from 4⅛ cents a pound to 4⅜ cents a pound, in barrels, at works.

BLEACHING POWDER.—Conditions in the bleaching powder market are favorable. Consumption has been heavy of late and there are no undue accumulations of stocks. Prices are steady to firm. Bleaching powder is quoted at from $2 to $2.40 per 100 pounds, in large drums, at works, according to quantity.

CASEIN.—While offerings of casein are more liberal, the prevailing demand is only light and prices of the domestic product have again declined slightly. Domestic casein is now quoted at from 17½ cents to 19 cents a pound, while imported casein is still selling at 18 cents a pound; all in bags, car lot quantities.

CAUSTIC SODA.—Production of caustic soda is proceeding in heavy volume. Consumption is being maintained in a very satisfactory manner and contract shipments are moving at a steady pace. Prices remain unaltered. Caustic soda is quoted at from $3 to $3.10 per 100 pounds, in large drums, at works. Spot car lots are selling at from $3.20 to $3.25 per 100 pounds.

CHINA CLAY.—Steadiness prevails in the china clay market and there is a continued good request for contract shipments. The spot market, however, is comparatively quiet. The quotation on imported china clay ranges from $15 to $25 a ton, ship side. Domestic paper makers' clay is still quoted at from $8 to $9 a ton, at mine, and pulverized at from $10 to $12 a ton.

CHLORINE.—Demand for chlorine is keeping up very well. Prices are holding to schedule in a satisfactory manner. Contract withdrawals continue to move at a steady pace. Chlorine is quoted at 4 cents a pound, in tanks, or multi-unit cars, at works, on contract orders. The spot quotation is from 4¼ cents to 4½ cents a pound.

ROSIN.—Some improvement was exhibited in the demand for rosin during the week and there was a pronounced advance in prices. At the naval stores, the grades of gum rosin used in the paper mills are now offered at from $9.45 to $9.50 per 280 pounds, ship side, in barrels. Wood rosin is still quoted at $9.50 per 280 pounds, southern shipping points.

SALT CAKE.—Manufacturers of salt cake are reported to be well sold ahead. While the market is rather quiet at present, shipments against contract continue to go forward in a normal manner. Prices remain steady and unchanged. Salt cake is still selling at from $18 to $19 a ton, in bulk, at works. Chrome salt cake is quoted at from $14 to $15 a ton, in bulk, at works.

SODA ASH.—Consumption of soda ash has been excellent of late and although ample stocks are available, the market rules very steady. Prices are holding up to schedule in most instances. Contract quotations, in car lots, at works, per 100 pounds, remain as follows: in bulk, $1.20; in bags, $1.32½, and in barrels, $1.57½.

STARCH.—Increased activity was experienced in the starch market during the past week. Production has been proceeding along generous lines and the output is being readily absorbed by consumers of this product. Prices remain unaltered despite the increase in the cost of grain. Special paper makers' starch is still quoted at $3.07 per 100 pounds, in bags, and at $3.24 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—Most of the business in the sulphate of alumina market transacted during the past week was along routine lines. Contract withdrawals are moving at a normal rate. Prices remain unaltered. Commercial grades of sulphate of alumina are quoted at from $1.40 to $1.45 per 100 pounds. The iron free is selling at from $2 to $2.05 per 100 pounds, in bags, at works.

SULPHUR.—The sulphur market is practically unchanged. Demand is satisfactory for the time of the year and contract withdrawals are proceeding at a normal pace. Prices are holding up to schedule. Sulphur is still quoted at from $18 to $19 a ton, in bulk, at mine, on contract orders. The spot quotation remains unchanged at $20 a ton.

TALC.—More or less routine conditions prevailed in the talc market during the week. Prices are being steadily maintained at previously quoted levels. Quotations on domestic talc range from $16 to $18 a ton, at eastern mines. French talc is offered at from $18 to $22 a ton, ship side.

Forest Products Laboratory Loses Valued Member

MADISON, Wis., June 27, 1927.—The U. S. Forest Products Laboratory here will lose a valued member of the staff July 1 when Vance P. Edwardes resigns to take a position as mill manager with the Northwestern Pulp and Paper Company at Astoria, Ore. Mr. Edwardes goes to his new position with an excellent background of laboratory and mill experience. He has been in charge of commercial contacts of the federal laboratory's pulp and paper section, including the Forest Products Laboratory's recent promotional work on white-water recovery and waste sulphite liquor disposal, since 1924. In 1917 to 1921 he was in charge of the laboratory's sulphite investigations. From 1921 through 1924, Mr. Edwardes was employed by the Consolidated Water Power and Paper Company at Appleton, Wis. While with this company he made a trip to Norway and Sweden to study Scandinavian sulphite methods.

With the Northwestern Pulp and Paper Company, Mr. Edwardes will be in charge of a 110-ton sulphite plant operating entirely on hemlock sawmill waste. This position will not be his first in the Northwest, as he was employed by the Crown-Willamette Company in Oregon City from 1911 to 1915.

At the time of his resignation, Mr. Edwardes was president of the Forest Products Club, a social and athletic organization of Forest Products Laboratory men, in which he was active. A farewell banquet was tendered by the club on the evening of June 22.

Swedish Paper and Pulp Exports Decline

WASHINGTON, D. C., July 12, 1927.—Exports of paper and pulp from Sweden during the first quarter of the current year show a slight decline as compared with last year, according to reports to the Department of Commerce.

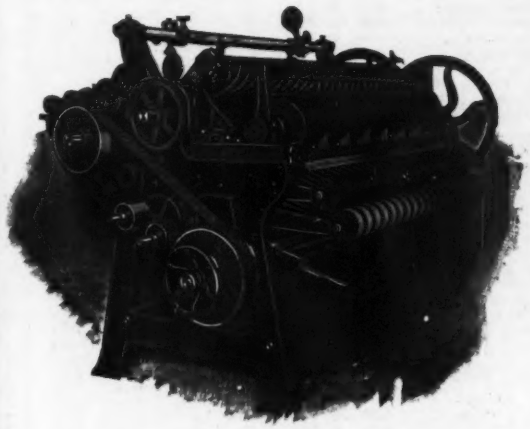
Shipments of sulphite pulp were nearly on a level with last year, but shipments of kraft pulp showed a reduction of 20 per cent, boards, 10 per cent, and newsprint paper 3 per cent. Losses in these lines were offset to some extent, however, by increased shipments of groundwood, which have risen from 10,487 metric tons during the first quarter of the last year to 16,848 tons during the corresponding quarter of this year.

Urge Forest Reserves for Quebec Co.

The Municipal Councils of Chicoutimi and River Moulin have adopted resolutions asking that the Provincial Government grant to the Quebec Pulp and Paper Company, Ltd., sufficient local forest lands to assure the establishment and operation of pulp and paper mills at Chicoutimi. The resolution reads that the terms of the grant should guarantee that the concessioners should have in operation, inside of two years, a plant in the Chicoutimi town limits, of a capacity of not less than 250 tons a day. Copies of the resolutions have been forwarded to Premier Taschereau and Honore Mercier, Minister of Lands and Forests, at Quebec.

Paper Cutters

Single, Duplex and Diagonal



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DRESDEN, GERMANY

Market Quotations

Quoted by Hepburn & Co., 74 Broadway, N. Y. City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	OFFERED
Advance Bag & Paper, 7s 1943	105	107
A. P. W. Pulp & Power, 7s 1945	101	102
American Writing Paper, 6s 1947	79	82
Bastrap Pulp & Paper, 6½s 1940	100	103
British Columbia Pulp & Paper, 6s 1950	85	90*
Beaver Products Corp., 7½s 1942	106	109
Berkshire Hills Paper, 8s 1941	60	80
Brown Paper Co., 1st 5½s 1946	94	98
Bryant Paper Co., 6s 1942	100½	102
Cape Breton Pulp & Paper, 6s 1932	101	103
Central Paper Serial 6, 6½s 1942	89	...
Champion Coated Paper, 6s 1926 to 1932	98	...
Champion Fibre, 8s 1930	100	...
Champion Paper Corp'n, 1st 6s 1945	95	97
Continental Paper Products, 6½s 1943	88	91½
Cornell Wood Prod., 7½s 1937	100	104*
Crown Willamette Paper, 6s 1951	97	101
Donnaconna Paper, 6s 1940	101	102½
Dells Paper & Pulp Serial, 6s 1926-38	*95	...
Eastern Mfg. Co., 7s 1938	89	91
Eddy Paper, 7½s 1931	102	104
Escanaba Paper Serial, 6s 1926-39	94	96
Fuller Fibre Serial, 7s 1926-39	95	...
Fort Orange Paper, 7s 1942	95	100*
Fox River Paper, 7s 1931	99	...
Gair Co. (The Robt.), 7s 1937	104	106
Gilbert Paper Co., 6½s 1926-29	89	...
Hammermill Paper, 6s 1939	100	103*
Hoberg Paper & Fibre, 7s 1937	94½	96
Itaska Paper & Prairie River Power, J+5½s 1926-38	94	96*
Itaska Paper 1st, 6s 1933-38	96	98*
Kalamazoo Veg. Parchment, 6s 1938	98	...
Marinette & Menominee, 7½s 1936	101	...
Mead Pulp & Paper, 5% Notes, 1927-37	92	95
Menasha Printing & Carton, 6½s 1939	99½	...
Mengel Company, 7s 1926 to 1934	100*	102
Monroe Paper Products, 7½s 1932	96	...
Munising Paper, 6s 1927-36	96	100
Nekoosa Edwards, 1st Ref. 6s 1928 to 1942	96	99*
Orono Pulp & Paper, 6s 1943	98	...
Orono Pulp & Paper, 5s 1941	94	...
Oswego Falls Corp., 6s 1941	98	100*
Oxford Paper, 6s 1947	100	...
Paepcke Paper Mills, 7s 1930	99	None
Parsons Pulp & Lumber, 7s 1928	97	...
Parker Young Co., 6½s 1944	95	99
Paterson Parchment Paper, 6s 1938	100½	102
Penobscot Chemical Fibre, 6s 1942	98	...
Poland Paper, 7s 1930	98	...
Port Alfred Pulp, 6½s 1943	*96	...
Queens City Paper, 7s 1932	95	100*
Richardson Co., 6s 1938	100	...
Spanish River Pulp & Paper, 8s 1941	106	110
Stevens & Thompson Paper, 6s 1942	93	95
St. Anne Paper, 6½s 1946	95½	98*
St. Croix Paper, 5s 1926-37	95	98*
St. Regis Paper Serial, 6½s 1926-35	98½	...
Tait Paper & Color Industries, 6s 1934	89	92
Taggart Bros. Co., 6s 1944	94	97
Ticonderoga Pulp & Paper, 5s 1930	95	98
Ticonderoga Pulp & Paper, 6s 1940	99	101
Warren (The S. D.) Company, 6s 1945	98	101
Wotab Paper, 6½s 1943	102	...
Westfield River Paper, 7s 1926-43	Wanted	...
Whitaker Paper, 7s 1942	106	108
Witmer-Parsons Pulp & Lbr. (Units)	63	70

STOCKS	BID	ASKED
Advance Bag & Paper, 8% Pfd.	97	100*
Am. Tissue Mills, 7% Pfd.	95	100
British Columbia P. & P., Pfd.	65	70
Brompton Pulp & Paper, 8% Pfd.	93	98*
Brown Corpn., 7% Pfd.	97	100*
Champion Fibre, 7% Pfd.	99	103*
Diem & Wing, 7% Cum. Pfd.	87	...
Donnaconna Paper, Com.	58	...
Donnaconna Paper, Pfd.	95	100
Eastern Mfg. Co., 1st Pfd.	34	37
Great Northern Paper (new)	62	65
Hammermill Paper, 7% Pfd.	105	110
Hinde & Dauch, Com.	135	...
Hinde & Dauch, Pfd.	100	...
Holyoke Card & Paper	150	None
Marathon Paper Mills, Com.	125	...
Midwest Box Co., Pfd. 8%	80	85
Midwest Box Co., Pfd. 6%	55	65
Louis De Jonge Co., 7% Pfd.	93	96
Oxford Papers, Com.	170	——
Oxford Paper Co., Pfd.	175	——
Penobscot Chemical Fibre, Com.	65	75*
Richardson Co., 7% Pfd.	104	...
Rubberoid Company	73	77
Seaman Container, Class B (par $1)	1	None Off.
Seaman Paper Co.	Wanted	None Off.
St. Croix Paper	150	170
St. Regis Paper Co., 7% Cum. Pfd.	97	100
Westfield River Paper Co., 1st Pfd.	Wanted	None Off.
West Virginia Pulp and Paper, Com.	58	63
West Virginia Pulp and Paper, Pfd.	97	102
Whittaker Paper, 7% Cum. Pfd.	97	103

* Nominal.

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.25	@ —
Rolls, transient	3.25	@ 3.50
Sheets	3.65	@ 3.85
Side Runs	3.00	@ 3.75
Book, Cased—		
S. & S. C.	6.35	@ 7.75
M. F.	6.25	@ 7.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream—		
White No. 1	.75	@ 1.00
Anti-Tarnish	1.10	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .85
Kraft	.90	@ 1.00
Manila	.75	@ .85
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	5.25	@ 5.50
Southern	4.75	@ 5.25
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
Screenings	3.00	@ 3.25
Card Middles	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

(Delivered New York)

Boards—per ton—		
News	47.50	@50.00
Straw	53.50	@57.50
Chip	45.00	@50.00
Binders' Boards	70.00	@75.00
Sgl. Mla. Ll. Chip.	57.50	@60.00
Wood Pulp	80.00	@85.00
Container	65.00	@70.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	30.00	@32.00
Dry	34.00	@36.00

(F. o. b. Mill)

No. 1 Domestic	27.00	@30.00
Screenings	15.00	@20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.50	@ 4.50
Easy Bleaching	3.05	@ 3.25
No. 1 strong unbleached	2.60	@ 2.85
Mitscherlich unbleached	2.65	@ 3.40
No. 2 strong unbleached	2.50	@ 2.70
No. 1 Kraft	2.70	@ 2.90
Sulphate—		
Bleached	3.75	@ 4.00

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.40	@ 4.75
Easy Bleaching Sulphite	2.85	@ 3.05
News Sulphite	2.50	@ 2.70
Mitscherlich	3.25	@ 3.75
Kraft (Domestic)	2.70	@ 3.40
Soda Bleached	3.50	@ 3.75
Sulphate Screenings—		
Coarse	.75	@ .85
Refined	1.50	@ 1.85

Domestic Rags

New Rags

Prices to Mill f. o. b. N. Y.

Shirt Cuttings—		
New White, No. 1	11.50	@12.00
New White, No. 2	8.00	@ 8.50
Silesias No. 1	7.25	@ 7.75
New Unbleached	10.50	@11.00
Washabies	4.25	@ 4.75
Fancy	5.50	@ 6.00
Blue Overall	7.00	@ 7.50
New Blue Prints	5.25	@ 5.50
New Soft Blacks	5.25	@ 5.75
Mixed Khaki Cuttings	4.50	@ 5.25
Pink Corset Cuttings	8.00	@ 8.50
O. D. Khaki Cuttings	5.00	@ 5.50
Men's Corduroy	3.75	@ 4.25
New Mixed Blacks	3.50	@ 3.75

Old Rags

White, No. 1—		
Repacked	5.75	@ 6.50
Miscellaneous	4.75	@ 5.25
White, No. 2—		
Repacked	3.25	@ 3.75
Miscellaneous	2.75	@ 3.00
St. Soiled, White	2.50	@ 2.75
Thirds and Blues—		
Repacked	2.25	@ 2.50
Misoellaneous	1.75	@ 2.00
Black Stockings	3.25	@ 3.75
Roofing Rags—		
Cloth Strippings	1.65	@ 1.75
No. 1	1.65	@ 1.75
No. 2	1.35	@ 1.45
No. 3	1.25	@ 1.35
No. 4	1.25	@ 1.35
No. 5A	.95	@ 1.05

Foreign Rags

New Light Silesias	7.00	@ 7.50
Light Flannelettes	7.75	@ 8.50
Unbleached Cottons	10.00	@11.00
New White Cuttings	10.50	@11.50
New Light Oxfords	7.00	@ 7.50
New Light Prints	5.50	@ 6.50
New Mixed Cuttings	3.00	@ 3.50
New Dark Cuttings	2.75	@ 3.25
No. 1 White Linens	7.00	@ 7.75
No. 2 White Linens	5.25	@ 6.00
No. 3 White Linens	4.00	@ 4.50
No. 4 White Linens	3.00	@ 3.50
Old Extra Light Prints	2.75	@ 3.25
Ord. Light Prints	2.25	@ 2.50
Med Light Prints	1.85	@ 2.10
Dutch Blue Cottons	2.25	@ 2.50
German Blue Linens	2.50	@ 2.75
German Blue Cottons	2.00	@ 2.25
Checks and Blues	1.75	@ 2.00
Lindsay Garments	1.75	@ 1.80
Dark Cottons	1.60	@ 1.70
Shoppery	1.50	@ 1.60
French Blues	2.25	@ 2.50

Old Rope and Bagging

Prices to Mill f. o. b. N. Y.

Gunny No. 1—		
Foreign	1.75	@ 1.85
Domestic	1.80	@ 1.90
Wool Tares, light	1.60	@ 1.70
Wool Tares, heavy	1.60	@ 1.70
Bright Bagging	1.60	@ 1.70
Small Mixed Rope	1.50	@ 1.65
Manila Rope—		
Foreign	3.25	@ 3.75
Domestic	4.25	@ 4.75
New Burlap Cut	3.00	@ 3.25
Hessian Jute Threads—		
Foreign	3.50	@ 4.00
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.25	@ 3.35
Hard, White, No. 2	2.75	@ 2.90
Soft, White, No. 1	2.75	@ 2.90
Flat Stock—		
Stitchless	1.25	@ 1.35
Overissue Mag.	1.25	@ 1.35
Solid Flat Book	1.15	@ 1.25
Crumpled No. 1	.80	@ .90
Solid Book Ledger	1.90	@ 2.10
Ledger Stock	1.40	@ 1.50
New B. B. Chips	.45	@ .55
Manilas—		
New Env. Cut	2.40	@ 2.60
New Cuttings	1.60	@ 1.85
Extra No. 1 old	1.25	@ 1.35
Print	.65	@ .75
Container Board	.50	@ .55
Bogus Wrapper	.70	@ .80
Old Kraft Machine Compressed bales	2.00	@ 2.10
News—		
No. 1 White News	1.55	@ 1.60
Strictly Overissaue	.65	@ .7-
Strictly Folded	.47½	@ .52½
No. 1 Mixed Paper	.37½	@ .42
Common Paper	.25	@ .30

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ALBANY GREASE

Twines
F. o. b. Mill

Cotton—			
No. 1	.28	@	.29
No. 2	.26	@	.27
No. 3	.24	@	.25
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.21	@	.23
No. 2	.20	@	.22
Tube Rope—			
4-ply and larger	.18	@	.19
Fine Tube Yarn—			
5-ply and larger	.23	@	.27
4-ply	.24	@	.28
3-ply	.26	@	.30
Unfinished India—			
Basis	.16	@	.17
Paper Makers Twine			
Balls	.13	@	.15
Box Twine, 2-3 ply	.17	@	.19
Jute Rope	.21	@	.23
Ameri. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.18	@	.20
No. 2 Basis	.16	@	.18
Sisal Lath Yarn—			
No. 1	.16	@	.18
No. 2	.14	@	.16
Manila Rope	.24	@	.26

CHICAGO

All Rag Bond	.35	@	.41
No. 1 Rag Bond	.25	@	.35
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07½
No. 2 M. F. Book	.05¾	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
News—Roll, mill	.03½	@	.04¼
News—Sheets, mill	.03¾	@	.04¾
No. 1 Manila	.04¾	@	.05¾
No. 1 Fibre	.04¾	@	.05¼
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.05¾	@	.06¼
Southern Kraft	.04½	@	.05
No. 2 Kraft	.05	@	.05¼
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue—			
24x36 Sheet	.07	@	.07¾
White Tissue—			
20x30 sheet	.07¼	@	.07½
Boards, per ton—			
(Delivered Central Territory—			
Plain Chip	45.00	@	47.50
Solid News	47.50	@	—
Manila Line Chip	55.00	@	57.50
Container Lined—			
(Delivered Central Territory)—			
85 Test	65.00	@	70.00
100 Test	70.00	@	75.00

Old Papers
F. o. b. Chicago

Shavings—			
No. 1 Hard White	2.70	@	2.80
White Env. Cuttings	3.60	@	3.70
No. 1 Soft Shavings	2.30	@	2.40
No. 1 Mixed	1.35	@	1.45
No. 2 Mixed	1.05	@	1.10
Ledger & Writings	1.45	@	1.60
Solid Books	1.20	@	1.30
Blanks	1.65	@	1.75
Krafts	1.80	@	1.90
New Kraft Cuts	2.25	@	2.35
Manila Envelope Cuttings	2.00	@	2.10
Ex. No. 1 Manila	1.55	@	1.65
Print Manila	.80	@	.90
Folded News (overissue)	.35	@	.47
Old Newspapers—			
No. 1	.55	@	.60
No. 2	.50	@	.55
Mixed Papers—			
No. 1	.35	@	.40
Roofing Stocks—			
F. o. b. Chicago, net cash			
No. 1	30.00	@	—
No. 2.	28.00	@	—

BOSTON

Paper
F. o. b. Mill

Ledgers—			
Sulphite	.07½	@	.15
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	06½	@	.11½
Rag content	.15	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
News	.03½	@	.04
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.05¾	@	.06½
No. 2 Kraft	.04¾	@	.05¾
Common Bogus	.02	@	.02½
Delivered New England points			
Straw Board, rolls .009			57.50
Straw Board in Sheets, basis 35s to 70s			53.50
Filled News Board			47.50
Chip Board			45.00
Single Manila Pulp lined board	55.00	@	60.00
Single White, patent coated board bender	75.00	@	80.00
Wood Pulp Board	80.00	@	85.00
Binder Boards	70.00	@	75.00
(F. o. b. Mills)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers
F. o. b. Boston

Shavings—			
No. 1 Hard White	3.15	@	3.30
White Blank News	1.40	@	1.50
Manila Env. Cuttings	2.00	@	2.25
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	2.85	@	3.00
No. 1 Soft White	2.75	@	3.00
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.00	@	2.25
No. 1 Books, Heavy	1.17½	@	1.30
No. 1 Books, Light	—	@	1.15
Old Kraft	1.75	@	1.90
No. 1 Old Manila	1.40	@	1.60
No. 1 Mixed Paper	.45	@	.50
Print Manila	.70	@	.80
Overissue News	.55	@	.60
Old Newspapers	.45	@	.50
Box Board, Chip	.45	@	.60

Bagging
Price f. o. b. Boston

Gunny No. 1—			
Foreign	1.50	@	1.60
Domestic	1.50	@	1.60
Manila Rope—			
Foreign	3.50	@	3.75
Domestic	4.00	@	4.37½
Mixed Rope	1.05	@	1.15
Scrap burlaps	1.35	@	—
Wool Tares, heavy	1.40	@	1.60
Mixed Strings	.90	@	1.05
New Burlap Cutting	2.15	@	2.25

Domestic Rags (New)
Price f. o. b. Boston

Shirt Cuttings—			
New White No. 1	.11¼	@	.11½
Silesias, No. 1	.07	@	.07½
New Unbleached	.10	@	.10½
Fancy	.05¾	@	.06
Washable	.04½	@	—
Cottons—According to Grades—Blue—			
Blue Overalls	—	@	.07
New Black, soft	.04	@	.04¼
Khaki Cuttings	.05	@	.05½
Corduroy	.03	@	.03½
New Canvas	.09	@	.10

Domestic Rags (Old)
Price f. o. b. Boston

White No. 1—			
Repacked	5.00	@	5.25
Miscellaneous	5.00	@	—
White No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03½	@	.04
Thirds and Blues—			
Repacked	2.12½	@	2.37½
Miscellaneous	1.75	@	1.90
Roofing Stock—			
No. 1	1.70	@	1.80
No. 2	1.37½	@	—
No. 3	1.22½	@	—
No. 4	1.12½	@	—

PHILADELPHIA

Paper
F. o. b. Mill

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	16	@	.25
Fine, No. 3	.12	@	.20
Book, M. F.	.06¾	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila	.09½	@	—
Manila Sul., No. 1	.04½	@	.06
Manila, No. 2	.04	@	.04½
No. 2 Kraft	.05	@	.05¾
No. 1 Kraft	.06	@	.06¾
Common Bogus	.02¾	@	—
Straw Board	60.00	@	65.00
News Board	45.00	@	50.00
Chip Board	40.00	@	42.00
Wood Pulp Board	4.50	@	5.00
(Carload Lots)			
Binder Boards—			
No. 1, per ton	85.00	@	90.00
No. 2, per ton	70.00	@	75.00
Carload lots	60.00	@	65.00
Tarred Felts—			
Regular	66.00	@	58.00
Slaters	70.00	@	72.00
Best Tarred, 1-ply (per roll)	1.85	@	1.95
Best Tarred, 2-ply (per roll)	1.55	@	1.70
Best Tarred, 3-ply	2.10	@	2.15
No. 1 Mixed Paper	.65	@	.70

Domestic Rags (New)
Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.11½	@	.12
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07½
Silesias, No. 1	.07½	@	.08
Black Silesia, soft)	.05	@	.05½
New Unbleached	.10½	@	.11
Washable	.04	@	.04½
Fancy	.05½	@	.06
Cottons—according to grades—			
Blue Overall	.07½	@	.08
New Blue	.03½	@	.04
New Black Soft	.05½	@	.06
New Light Seconds	.03	@	.03½
Khaki Cuttings	.04½	@	.05
Corduroy	.03	@	.03¾
New Canvas	.08	@	.09
New Black Mixed	.05	@	.05½

Bagging
F. o. b. Phila

Gunny, No. 1—			
Foreign	1.75	@	2.00
Domestic	1.75	@	2.00
Manila Rope	4.25	@	4.50
Sisal Rope	1.25	@	2.00
Mixed Rope	1.25	@	1.50
Scrap Burlaps	1.75	@	2.00
Wool Tares, heavy	2.00	@	2.25
Mixed Strings	1.50	@	1.75
No. 1, New Light Burlap	2.25	@	2.50
New Burlap Cuttings	2.25	@	2.50

Old Papers
F. o. b. Phila.

Shavings—			
No. 1 Hard White	3.50	@	3.60
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	2.80	@	2.90
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	1.90	@	2.00
Writing Paper	1.65	@	1.75
No. 1 Books, heavy	1.15	@	1.20
No. 2 Books, light	.80	@	.85
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	1.00	@	1.10
Container Manila	.75	@	.80
Old Kraft	2.00	@	2.20
Common Paper	.40	@	.50
No. 1 Mixed Paper	.50	@	.60
Straw Board, Chip	.60	@	.65
Binders Board, Chip	.60	@	.65
Overissue News	.75	@	.80
Old Newspaper	.50	@	.60

Domestic Rags (Old)

White, No. 1—			
Repacked	5.00	@	5.25
Miscellaneous	4.75	@	5.00
White, No. 2—			
Repacked	.03½	@	.04
Miscellaneous	.02	@	.02½
Thirds and Blues—			
Repacked	2.50	@	2.75
Miscellaneous	1.75	@	2.00
Black Stockings	3.25	@	3.50
Roofing Stock—			
No. 1	1.62½	@	—
No. 2	1.37½	@	—
No. 3	1.25	@	1.35
No. 4	1.20	@	1.30
No. 5A	.90	@	1.00
B	.80	@	.90
C.	.80	@	.90

TORONTO

Paper
F. o. b. Mill

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¼	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
News f. o. b. Mills—			
Rolls (Carloads)	3.25	@	—
Sheet (carload)	3.75	@	—
Sheets (2 tons or over)	4.00	@	—
Book—			
No. 1 M. F. (carloads)	7.75	@	—
No. 2 M. F. (carloads)	7.50	@	—
No. 3 M. F. (carloads)	7.25	@	—
No. 1 S. C. (carloads)	8.25	@	—
No. 2 S. C. (carloads)	8.00	@	—
No. 3 S. C. (carloads)	7.75	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.85	@	—
White Rag	5.25	@	—
"B" Manila	5.65	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.20	@	—
M. G.	7.35	@	—

Pulp
(F. o. b. Mill)

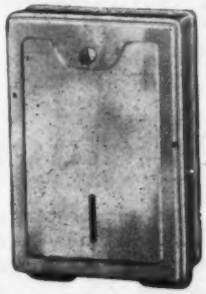
Ground wood	28.00	@	30.00
Sulphite easy bleaching	60.00	@	—
Sulphite news grade	55.00	@	58.00
Sulphite, bleached	78.00	@	80.00
Sulphate	65.00	@	—

Old Waste Paper
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.20	@	—
Soft White Book Shavings	3.00	@	—
White Blk, News	1.40	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.40	@	—
Solid Ledgers	1.40	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.47½	@	.52½
No. 1 Mixed Paper	.37½	@	.42

Domestic Rags
(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.12	@	.12½
Fancy Shirt Cuttings	06	@	.06½



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Dispensing Cabinets

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Fixtures

ARE

The STANDARD of the PAPER TRADE

For Towels, Toilet, Napkins, Etc.

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For Slitting, Rewinding and Flat Paper Cutting

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McKenna & Phelps

Incorporated

489-493 Broome Street

Where Service & Quality Count

THE PULP BUYER

WILL TELL YOU WHY

Fidalgo System Dried and Shredded Pulp (Air Dried)

IS THE ANSWER

Units 10 to 75 ton daily capacity.

Producing a compact air dry bale (suitable rail and water shipment 40-45 cu. ft. per ton) of SHREDDED pulp.
Higher test than when dried on cylinder machines.

33 1/3 SAVING AT BEATER

GENERAL ADVANTAGES

No Mechanical Pressure used until dry—upon cutting straps at Beater entire bale allowed to absorb rapidly. No surface pressure on wet pulp during drying process. Only current of warm dehydrated air, produces a product that has its surface pores wide open for ready absorption in Beater and produces a pulp testing from 10 to 30 points higher than any pulp dried in sheet form.

LABOR, STEAM, POWER, ETC.

LESS LABOR than any cylinder or mechanical pressure dryer.
Less than 3,500 lbs. steam required (either live or exhaust) per ton air dried pulp, with economizer pulp can be dried with waste stack gases.

CLEANLINESS

Pulp being dried in closed insulated compartment—FIDALGO SYSTEM produces cleaner pulp.

USERS

Eight installations in United States and ten on order or under construction.
Your inspection invited.

COST

Less than any Drying Method we know of to install.

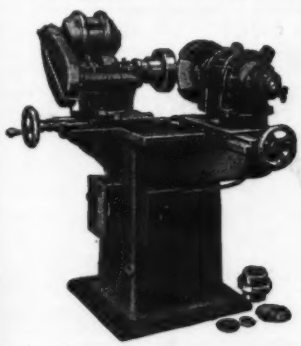
Write Us for Particulars

Technical Economist Corporation

40 RECTOR STREET NEW YORK, N. Y.

Telephone Whitehall 5243 Cable HERENCO

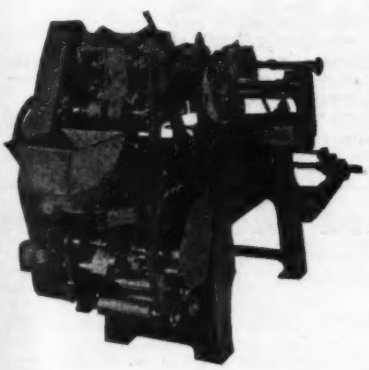
Bridgeport Heavy Duty Slitter Grinder



Motor Driven
No belts whatever
Entirely self-contained
Send for details

The Bridgeport Safety Emery Wheel Co., Inc.

Manufacturers of
The Bridgeport Paper Knife Grinder,
1296 W. Broad St.,
Bridgeport, Conn.



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Paper Bag Machinery

Get My Quotations Before Placing Your Orders

Special Machinery Designed and Built

A. L. PARRISH,

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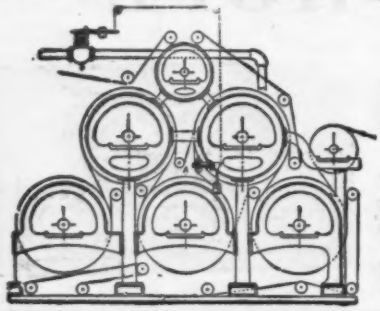
The Pickles Drying Regulator



WE ARE SAFE IN OUR PROPOSITION

YOU'LL MAKE NO MISTAKE IN ACCEPTING IT

Pickles Drying Regulator

will do everything we claim for it and more. The test costs you nothing until you are satisfied. Many mills tried one and now have every machine equipped. Write for list of users and other information.

W. F. PICKLES **Buckland, Conn.**

SHIPPING INSURANCE

The Use of

ELIXMAN CORES

protects your rolls and insures their delivery to your customer in perfect condition. They eliminate claims for damages.

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Your two sources of supply are

Canadian Elixman Company
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Elixman Paper Core Company
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WOODPULP AGENTS

PRICE & PIERCE, Ltd.,

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NEW YORK

Ham Feltz sez:

Life is sure fast these days—and gettin' faster every minute. Used to be that a trip on the Main St. car line was a wild and reckless joy-ride. Now the street cars block the traffic. Same with papermaking. The speed-devil is makin' a hard life and a short one for a felt that ain't got the stuff. But I ain't heard of Hamilton A-plate press felts weakening any under the strain. Have you?

Hamilton Felts

A more uniform stock refinement with less power consumption per ton of stock prepared is possible with the BALL BEARING TYPE APPLETON JORDAN

WRITE TODAY FOR BOOKLET - 5 POINTS OF IMPROVED JORDAN PERFORMANCE

THE APPLETON MACHINE COMPANY - APPLETON, WIS.

Perforated Metal Screens

for every purpose

Elevator Buckets (plain or perforated)
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"Miteo" Interlocked Steel Grating—Light and Heavy Steel plate Construction

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INTERNATIONAL WIRE WORKS
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J. O. ROSS ENGINEERING CORPORATION
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The Modern Way of Handling Paper
Cleveland Electric Tramrail
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LABOR COST REDUCTION
Without Red Tape
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Centrifugal and Triplex Pumps
For All Purposes
Designing Pumps to Fit All Conditions Our Specialty

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For Pressure, Vacuum, Temperature, Liquid Level, Humidity, Speed, Electric Units, etc.
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CAUSTIC SODA
76%—Solid Liquid Flake
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All Grades of Rag and Paper Stock
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Digester, Acid Proof and other Guaranteed Linings *Bleaching Systems*

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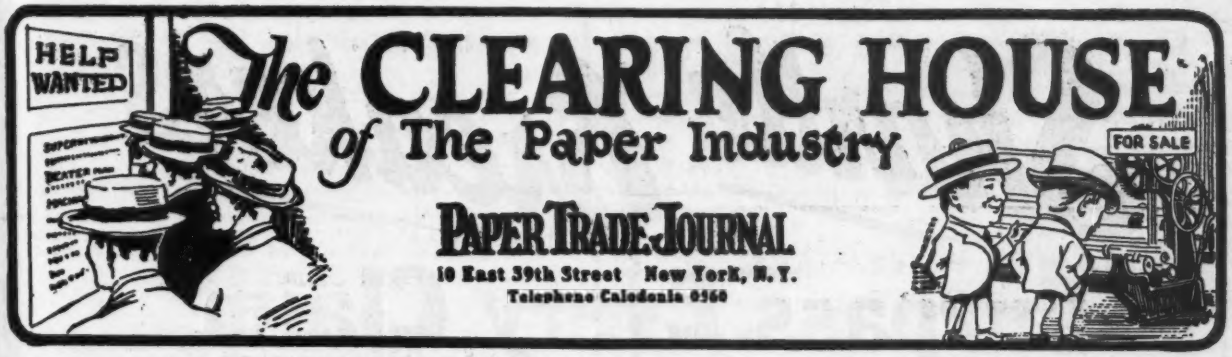
COMBUSTION ENGINEERING CORPORATION
PULVERIZED FUEL
International Combustion Building, 200 Madison Ave., (35th to 36th Sts.) New York



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All classified, "Help Wanted" and "Situation Wanted" advertisements are payable in advance.

HELP WANTED

WANTED—Young man, not over 30 years old, for paper mill superintendent's office. Must be experienced in paper mill cost work and familiar with various methods of testing paper. Give experience and salary expected. Address, Box 27-378, care Paper Trade Journal. Jl-21

IF YOU are open to overtures for new connection, and qualified for a salary between $2,500 and $25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service, of recognized standing and reputation, through which preliminaries are negotiated confidentially for positions of the calibre indicated. The procedure is individualized to each client's personal requirements; your identity covered and present position protected. Established sixteen years. Send only name and address for details. R. W. Bixby, Inc., 117 Downtown Building, Buffalo, New York. tf.

SUPERINTENDENTS, EXECUTIVES, ENGINEERS, $3,000-$25,000, find our individual confidential service effective in making new connections. Personally planned by Jacob Penn, the eminent employment authority, known to all paper mill owners. Not agency. Jacob Penn, Incorporated, 816 Parkmurray Building, New York. tf.

SUPERINTENDENT for 80 ton Chip Board Mill. State age, experience, family, salary desired, and when could report. Address, Box 27-387, care Paper Trade Journal. Jl-21

WANTED—Manager for Paper House long established. Address, Box 27-391, care Paper Trade Journal. Jl-14

MACHINE TENDERS WANTED for new cylinder tissue machine ready to start. Steady work. Reference required. Address, Box 27-364, care Paper Trade Journal. Jl-14

BEATERMAN WANTED for two machine mill in Delaware, making rag and wood book specialties; three towers. Must be experienced in colors. Address, Box 27-361, care Paper Trade Journal. Jl-14

Grinders, Four Pocket with Synchronous Motor

2—4 pocket grinders direct connected to synchronous motor, 2300 volt, 3 phase, 60 cycle, with extra shafting and stone.

TECHNICAL ECONOMIST CORPORATION

40 RECTOR STREET
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Telephone Whitehall 5243
Cable Herenco

Address Replies

to advertisements appearing under Box Numbers in care of

PAPER TRADE JOURNAL
10 East 39th St.,
New York, N. Y.

SITUATIONS WANTED

PULP AND PAPER MILL ENGINEER—Age 35 years, married, ten years experience on maintenance, remodelling, extension programs, and purchase of equipment. Prefer position as plant or construction engineer. Can handle men. References furnished. Address, Box 27-367, care Paper Trade Journal. Jl-14

POSITION WANTED—Superintendent or foreman; chip board or wrapper mill. Experienced at construction and remodeling. Eastern states preferred. Address, Box 27-382, care Paper Trade Journal. Jl-21

MILL MANAGER DESIRES POSITION. THOROUGHLY TRAINED BY LONG EXPERIENCE TO DIRECT THE OPERATION OF ANY MILL. SPECIALIZING IN THE MANUFACTURE OF KRAFT, MANILAS, COLORED SPECIALTIES, TISSUES AND ABSORBENT PAPERS. CORRESPONDENCE SOLICITED. ADDRESS, BOX 27-363, CARE PAPER TRADE JOURNAL. Jl-14

POSITION AS TOUR BOSS OR SUPERINTENDENT—Twenty-five years experience on most all kinds of paper, also glassine, greaseproof and groundwood. Good on colors. Address, Box 27-392, care Paper Trade Journal. Jl-21

ADJUSTER on Flat and Square and sock machines wishes position. Address, Box 27-397, care Paper Trade Journal. Jl-28

VERY STEADY and reliable married man available at once for situation. Can furnish best of testimonials. 8 years practical experience in news, Krafts, wrappings, imitation parchments, bank, wall papers, etc. Also holds the City and Guilds of London first-class certificate in paper technology. Address, Box 27-374, care Paper Trade Journal. Jl-14

PRACTICAL MASTER MECHANIC desires position. Capable of installing and keeping machinery in first-class condition. Fourdrinier and Cylinder machines. Ability to handle help and get results. Best references. Address, Box 27-373, care Paper Trade Journal. Jl-14

PAPER SALESMAN with twelve years experience seeking position as Chicago representative for manufacturer of fine papers. Address, Box 27-352, care Paper Trade Journal. tf.

SITUATIONS WANTED

A CHEMICAL ENGINEER with successful record in operation, engineering, development, sales service, and management, desires to make a permanent connection with a company whose management is sold on a thorough development program over a period of years, based on sound technical fundamentals. Such a program properly executed is the only sure guarantee of future earnings. Address, Box 27-380, care Paper Trade Journal. A-18

WANTED—Position as manager or superintendent of mill making binders, leather and other boards. Middle-aged man. Good at construction and repairs. Address, Box 27-381, care Paper Trade Journal. Jl-21

PAPER MILL SUPERINTENDENT—Trained on M. F. and M. G. Kraft and Sulphite papers, over various grades. Best of references. Address, Box 27-393, care Paper Trade Journal. S-8

MACHINE TENDER open for position. Accustomed to all grades of tissue, fast and slow speed. Good references. Can come at once. Address, Box 27-355, care Paper Trade Journal. Jl-14

GROUND WOOD FOREMAN and Millwright open for position. Best of references. Familiar with electrical equipment. Address, Box 27-346, care Paper Trade Journal. A-11

PAPER SALESMAN with twelve years experience seeking position as Chicago representative for manufacturer of fine papers. Address, Box 27-352, care Paper Trade Journal. tf.

ASSISTANT SUPERINTENDENT—College graduate, chemist, nine years practical experience and research in rag fine writing papermaking and specialties, desires position with opportunity for advancement. Address, Box 27-320, care Paper Trade Journal. tf.

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Two Horizontal Boilers
150 H. P.—72" x 18 ft.
Good as New—High Pressure.
Kawanee—Makers.
100 H. P. Straight Line Engine.

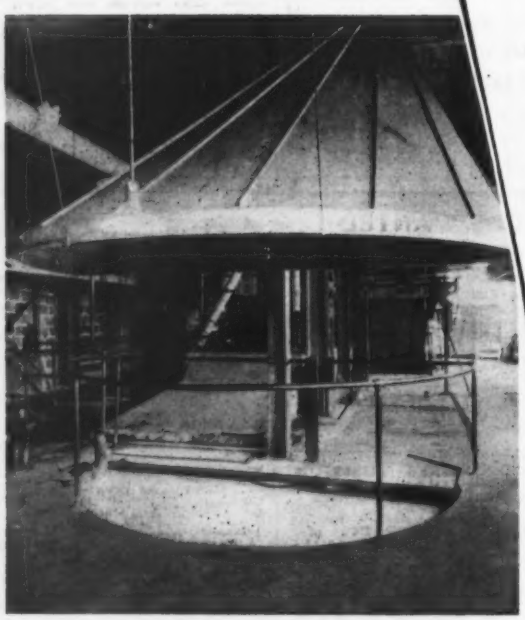
John Single, Syracuse, N. Y.

Classified Advertising costs little but brings large returns.

Shartle Breakers

Surpass Every Claim

We ever made *for* Them!



Standard Paper Company

Kalamazoo Michigan April 28, 1926

Mr. A. E. Bridges,
Shartle Brothers Company,
Middletown, Ohio.

Dear Mr. Bridges:—

We installed one of your Shartle Breaker systems in our plant about two years ago, and since that time have been handling all of our filler stock with it.

It has accomplished more than we anticipated, and we are very highly pleased with the results.

We take pleasure in recommending your breaker beater system to others.

Yours very truly,
STANDARD PAPER COMPANY.
B. C. Hutchinson.

BCD:T

Read what the Standard Paper Company has to say. Find out what a few other users think of Shartle Breakers. Then do the obvious thing—write us for complete data regarding them.

How can you hesitate when we can show instances where savings on labor alone have run well on to $30,000?

Shartle Brothers Machine Company
MIDDLETOWN, OHIO

SHARTLE BROTHERS

DIVISION OF THE BLACK-CLAWSON COMPANY

Shartle SHARTLE **Breakers**

MISCELLANEOUS

HAVE YOU any odd size Rolls or Sheets to offer, regardless of size or quantity? We are also interested in Damaged Paper—rejected lots—Wood Pulp—Tympan or Offset, either in Rolls or Sheets. Submit samples to Goldman Paper and Paper Stock Co., 414 So. Front Street, Philadelphia, Pa. tf.

WANTED—Mill ends and job lots in rolls or flats in any quantity, all grades. Also boards. Joseph Goldstein & Sons, 1302-9 N. Halsted Street, Chicago, Illinois. tf

CLARK MANUFACTURING COMPANY, Holyoke, Mass. Telephone 1828. Builders of cylinder moulds, couch and felt rolls, dandy rolls. We cover dandies and cylinders tight, for fast running machines. 3-5-27

WANTED—We are interested in job lots of paper of any kind, large or small quantities. Submit samples and price. Ireland & Taub Paper Co., Inc., 121 Sullivan Street, New York. tf

WANTED—Mill ends, rejected, or damaged rolls, any quantity or grade. W. A. Johns Paper Company, 526 West 18th Street, Chicago, Illinois. Jl-21

WANTED

WANTED—2 W. & P. Pulpers, 2 Filter Presses and 1 Rogers Wet Machine. Address, Box 27-285, care Paper Trade Journal. tf.

WANTED—One Hamblet Cutter 65 inches or over and one Erie Layboy to attach. Address, Box 27-394, care Paper Trade Journal. Jl-21

WANTED—Two 28" Dryers, face 58 to 60"—shoulder to shoulder 66¾". Also one 28" Dryer, face 68 to 70", shoulders 76" between. Boxes to fit journals on all three Dryers. Faces of roll should be free from sand holes and ground to a perfect smooth surpace with a crown 1/1000. Address, Box 27-386, care Paper Trade Journal. Jl-14

WANTED—Second hand Kidder or Cameron rewinder. Give full particulars and lowest price in first letter. Address, Box 27-396, care Paper Trade Journal. Jl-14

WANTED—One 52 inch Super Calender—5 stack in good condition. Address, Box 27-395, care Paper Trade Journal. A-4

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FOR SALE—Second-hand 1200 lb. wood tub N. & W. beater. In good condition. The Noble & Wood Machine Co., Hoosick Falls, N. Y tf.

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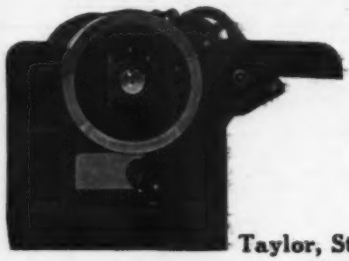

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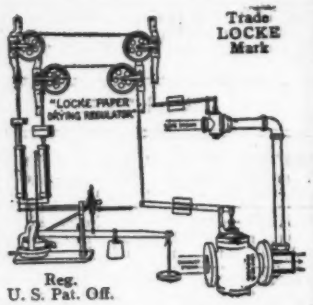

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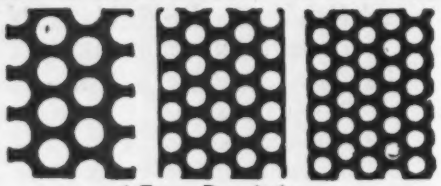

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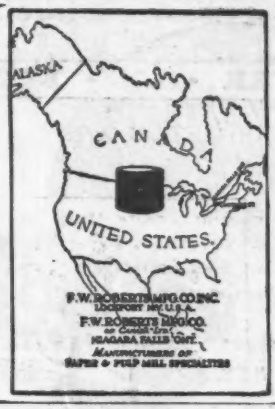

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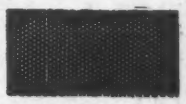
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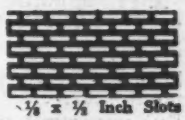
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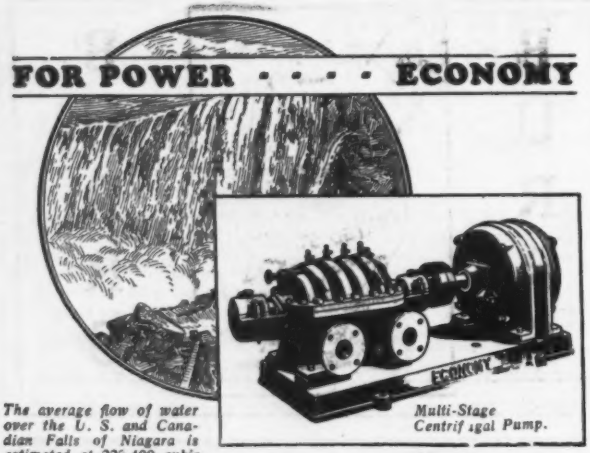

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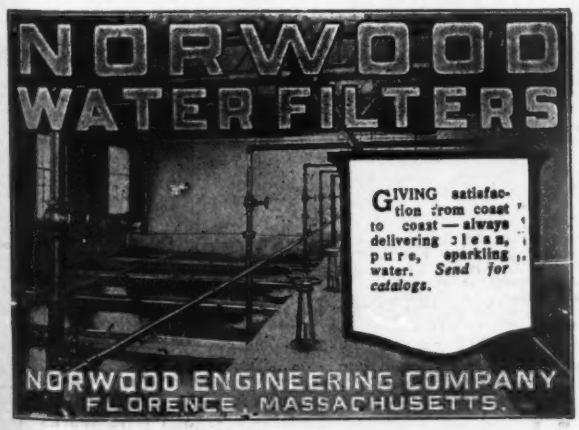
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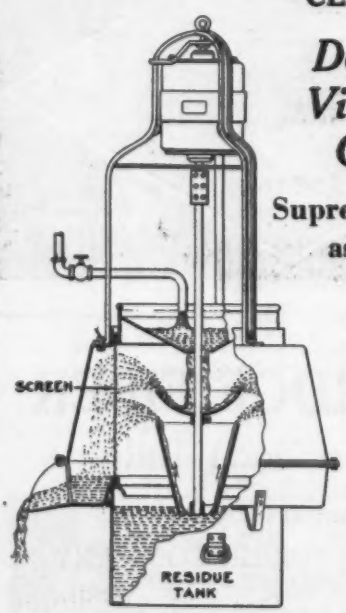

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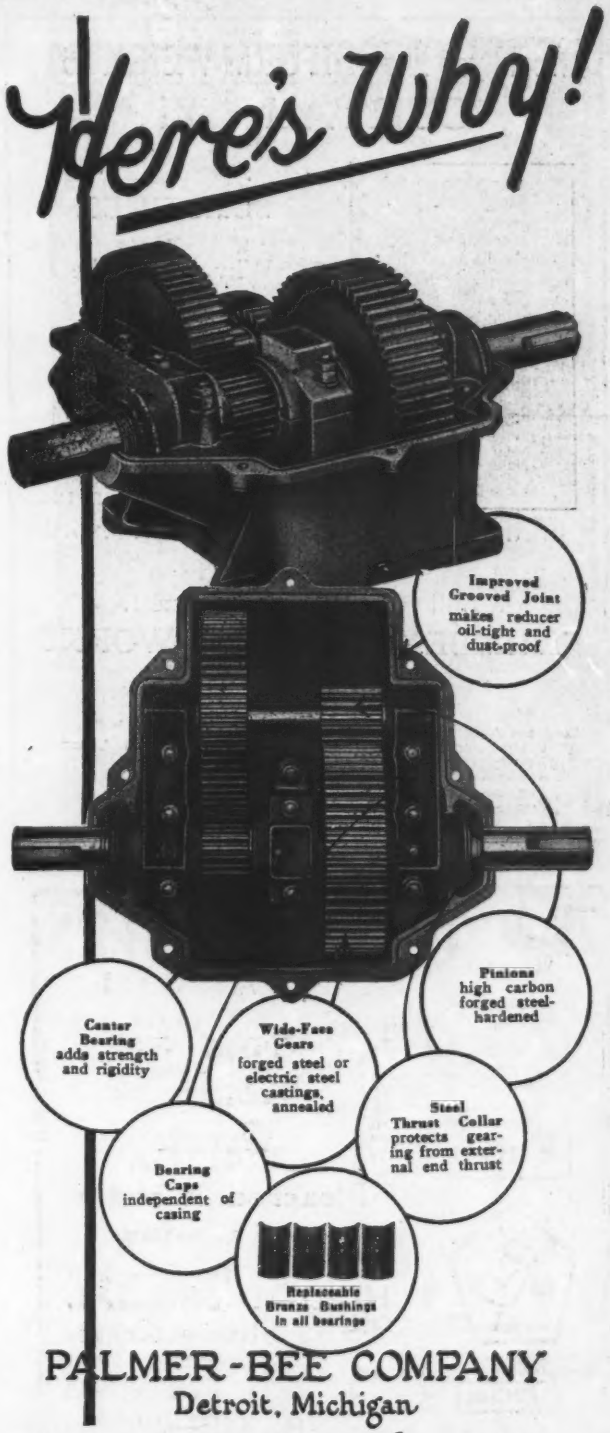
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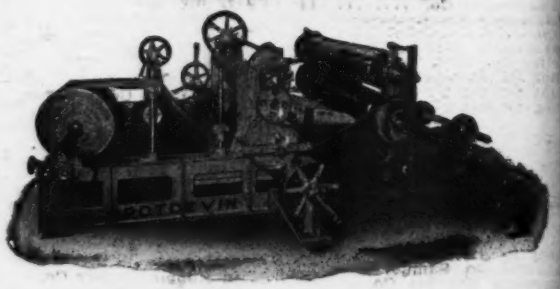

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